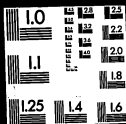


CENTIMETERS



14:1

# Thomas A. Edison Papers

## *A SELECTIVE MICROFILM EDITION PART V (1911-1919)*

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**Thomas A. Edison Papers  
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**START**

**235**

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**NOTEBOOK SERIES  
NOTEBOOKS BY EDISON  
AND OTHER EXPERIMENTERS**

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 24**  
**Notebook, N-17-07-31**

This notebook was used by Edison, Archie D. Hoffman, and possibly other experimenters during July-August 1917 for notes on efforts to improve the surface quality of Edison disc records. The entries pertain primarily to a sequence of experiments numbered from 1750E through 1781E. Most involve experimental lots of record blanks constructed by different methods or prepared with different ingredients. The notes often take the form of instructions to Hoffman, Charles Dally, Frederick P. Ott, or other unspecified employees and include evaluations of the records produced. The entries toward the end of the book summarize the results obtained by varying the amounts of pressure, indicating an increase in durability in the records produced at the end of July. Inserted into the book are several loose notes, including some by Edison. The front cover is labeled "24." The pages are unnumbered. Approximately 50 pages have been used.



Alcohol 52  $\frac{1}{2}$  C  
1917 -

Summerville shooter dying  
in Vac chamber show  
Dups 11 in number over 2  
months period 87  $\frac{1}{2}$  OK  
he will change to 2 hours  
drying July 30<sup>th</sup>/19

1750 E

Summerville exports lately all  
break on drop test 20 -

This is 6 Records from  
Reg Run of factory  
Drop test -

1	—	20
2	—	20
3	—	3
4	—	20
5	—	20
6	—	20 -

1751-E

7/3/17



1 lb. Dab

1 lb. Dab

1 lb. Dab

0-

1751.

12 blanks reg powder now only  
30% sk prints -



~~1 lb. Dab~~  
1 lb. 7" dia.  
same

thinner as the thin rubber X.  
to make blanks lower in center

Made

ordered

1752

Reg wood pulp ground +  
screen to same size as we  
now grind regular mix -

Capacity of Mill + screens to be  
ascertained + quality of  
fibre investigated microscopically

Not practical - only get 224 lbs  
hour, had to stop clean mill screens

63% content then	180	Reg	90%
46%	"	750	63

Whereas reg gave far higher  
abandoned 404 1757 F

7/31/17

1753-E



16%

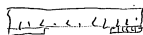
only printed  
9 bands.

2 Bbs Miss before printing  
discovery, ok Bbs.



1753-E

Load 12 blanks high in center



Reg pad with  
Holes  
7.5 inches

Make -

order

1754E

Daily to dissolve Rosin in  
warm

Petroleum Benzine  
" Naphla

Solvent Naphla.

Kerosene -

& Report -

1755 E

Daily to see if Solvent  
Naphtha will dissolve hard  
Coal Tar pitch, Asphalt  
Mylonite, ~~etc.~~ etc. if so  
to mix Woodchuck Chalk etc.  
Reg proportions will 15%  
of pitch, using minimum  
Solvent Naphtha -

8/6/17

1756-E

2A	2A	Drop test	Califano Points
2A	2A	1	235.1
2A	2A	2	231.1
2A	2A	3	225.1
2A	2A	4	228.1
2A	2A	5	253.
2A	2A	6	230.1
2A	2A	7 times	

These appear to have a better surface than Reg will try on Michael in case of a drop test, as they are dry & adhere better out of the drop. Probes of good surface.

100	1rd
-----	-----

100%

I am told they  
powdered ground &  
blasted very bad  
and out from Haffmush  
all about it.

1756- NG  
Cuts edge of  
Edge of <sup>Tool</sup> <sup>all to</sup>  
pieces - Hand blank  
chips

Hoffman Make one dryer  
batch of regular using  
China Clay instead of  
Chalk - Run the whole  
of it thru But keep  
account of 96. up  
stairs what percent  
was OK - also per  
cent good blanks

1757

Hoffman

Make dryer full of mix with  
only  $\frac{1}{2}$  the amount of varnish  
usually used

Dry & grind + screen —

Then take this powder put in  
mixer & add the other  $\frac{1}{2}$   
of the Varnish mix well &  
~~and~~ dry again —

Use this powder ~~for~~  
with rescreening —

Let whole batch go thru factory  
but give 96 of the blanks the running  
print & keep track of OK blanks & prints



1758

Grind Rosin & Reg wood + chalk  
in Chilian Mill - also works  
see how it presses in 2" die  
with Reg pressure

Fred Ott -

Went a pressure of 2400  
lbs on the 2" die -

1759 E

Fredell, + Dalling

Mix. 6 oz wood fibers  
4 oz chalk

with a varnish made of  
1 1/2 oz Rosin - in 60 cc  
of solvent Naphtha -  
Do it in Chellian kiln  
Then drop at 212 in  
Vacuum Press

Let me see powder ~~before~~  
after mixing & after drying  
DVE

add bunch of  $\frac{1}{2}$  the powder  
(flow) mix than put in all  
 $\frac{1}{2}$  of wood than mix  
then slowly add  
chalk till all uniform

Antine Violet Colors  
Vermilion -

[illegible]

1760 E

Print 24 Reg records  
but instead of 850 pressure  
use only 800.

Print & send to Edna



[illegible]

1762 E

Print 24 regular  
records but instead  
of using 850 lbs use  
only 700 lbs.  
Send to Edna

See next Page







[illegible]

[illegible]

1765 E

Print 12 records but only  
use 600 lbs pressure

Dead to Eden

7/31/17 Night Work 8/1/17 Day Work 8/2/17 Day Work 1/-/17

Diagram 1 (Left): A vertical column of 12 circles, each containing 'OK' and '25'. A large checkmark is drawn over the middle section. Below the column is '100%'.

Diagram 2 (Right): A vertical column of 12 circles, each containing 'OK' and '25'. To the right of each circle is a horizontal bar. Below the column is '75%'.

Diagram 3 (Bottom Right): A single circle containing 'OK' and '25' next to a horizontal bar. Below it is '4%'.

[illegible]

1766-E

Print 12 records on regular  
printing schedule. \$50 lbs premium.

7/31/17

1777-E

OK

x

Drop test

1. — 20

OK

x

2. — 20

OK

x

3. — 20

OK

x

4. — 20

OK

x

5. — 20

OK

x

6. — 20

OK

x

120 times

OK

x

1/4" mesh screen on shaking machine.  
Powder piles up in center, had to dis-  
turb it around edges.

OK

x

tested 3 records

1 very accurately

OK

x

2 " " "

OK

x

3 " " "

OK

x

Very bad. Too dry.

9/1/17

Can't see signs to smooth.  
No powder must have  
segregated - coarse on flanks  
fines.

1777 E

Hoffman -

Use the shaking screen  
rig it up and load 12 moulds  
by putting in weighed  
amount of powder from  
a scoop all at once  
while screen is shaking  
till all through, press  
with Rotas regular  
Note time it takes to  
load

1778-

[illegible]

75% Good  
62.5 Perfect

Drop	Drop	Drop
1	20	226.1
2	20	230
3	20	237.1
4	20	240.1
5	20	245.1
6	20	247.1

750 Total

Averages

850	41-45
800	60-42
750	63-64
700	59-67
650	74-78
600	85-92

Tested Violin Michel records 850-600  
550 500

850 is the best. 500 is next best 600 next  
+ 550 worst. There is only a small  
difference between all except 550  
which is noticeably lower but all are  
good - Evidently Varenhulung  
Techniques can be specially  
improved -

If we have to go to 500 it  
is OK & only result will be  
a small % of low spots

Hence on fine periods blank  
of July to the 1917 we have  
a change as far as surface is  
concerned from 850 to 500 lbs pressure

# Pressure Tests

850 800 750 700 650 600

25	33	47	49	58	58
58	91	83	47	83	100
41	58	75	100	83	100
58	58	47	41	83	83
	25	66	75	66	100
<del>accumulation set 700</del>			83		100
700	650	600	550	500	
			95.5	95.8	

## Edging

100%	90.9	—	92.2	100	100
100	100	100	83.3	91.6	100
82	91	82	82	82	91

Reg & special Arbor  
Edging on 400 ~~to~~ 650-600  
550 + 500 lbs pressure  
all 100%  
No Re Edging

Aug 1st 1917  
Put Accumulation pressure at 600  
lbs - at 10 45 am —





	Day Work 8/1/12	Day Work 8/2/12	Day Work 8/3/12
0.30	OK	Scarf at	OK
0.40	OK	Scarf at	OK
0.50	OK	Scarf at	OK
0.60	OK	OK	OK
0.70	OK	OK	OK
0.80	OK	OK	OK
0.90	OK	OK	OK
1.00	OK	OK	OK
1.10	OK	OK	OK
1.20	OK	OK	OK
1.30	OK	OK	OK
1.40	OK	OK	OK
1.50	OK	OK	OK
1.60	OK	OK	OK
1.70	OK	OK	OK
1.80	OK	OK	OK
1.90	OK	OK	OK
2.00	OK	OK	OK
2.10	OK	OK	OK
2.20	OK	OK	OK
2.30	OK	OK	OK
2.40	OK	OK	OK
2.50	OK	OK	OK
2.60	OK	OK	OK
2.70	OK	OK	OK
2.80	OK	OK	OK
2.90	OK	OK	OK
3.00	OK	OK	OK
3.10	OK	OK	OK
3.20	OK	OK	OK
3.30	OK	OK	OK
3.40	OK	OK	OK
3.50	OK	OK	OK
3.60	OK	OK	OK
3.70	OK	OK	OK
3.80	OK	OK	OK
3.90	OK	OK	OK
4.00	OK	OK	OK
4.10	OK	OK	OK
4.20	OK	OK	OK
4.30	OK	OK	OK
4.40	OK	OK	OK
4.50	OK	OK	OK
4.60	OK	OK	OK
4.70	OK	OK	OK
4.80	OK	OK	OK
4.90	OK	OK	OK
5.00	OK	OK	OK
5.10	OK	OK	OK
5.20	OK	OK	OK
5.30	OK	OK	OK
5.40	OK	OK	OK
5.50	OK	OK	OK
5.60	OK	OK	OK
5.70	OK	OK	OK
5.80	OK	OK	OK
5.90	OK	OK	OK
6.00	OK	OK	OK
6.10	OK	OK	OK
6.20	OK	OK	OK
6.30	OK	OK	OK
6.40	OK	OK	OK
6.50	OK	OK	OK
6.60	OK	OK	OK
6.70	OK	OK	OK
6.80	OK	OK	OK
6.90	OK	OK	OK
7.00	OK	OK	OK
7.10	OK	OK	OK
7.20	OK	OK	OK
7.30	OK	OK	OK
7.40	OK	OK	OK
7.50	OK	OK	OK
7.60	OK	OK	OK
7.70	OK	OK	OK
7.80	OK	OK	OK
7.90	OK	OK	OK
8.00	OK	OK	OK
8.10	OK	OK	OK
8.20	OK	OK	OK
8.30	OK	OK	OK
8.40	OK	OK	OK
8.50	OK	OK	OK
8.60	OK	OK	OK
8.70	OK	OK	OK
8.80	OK	OK	OK
8.90	OK	OK	OK
9.00	OK	OK	OK
9.10	OK	OK	OK
9.20	OK	OK	OK
9.30	OK	OK	OK
9.40	OK	OK	OK
9.50	OK	OK	OK
9.60	OK	OK	OK
9.70	OK	OK	OK
9.80	OK	OK	OK
9.90	OK	OK	OK
10.00	OK	OK	OK
10.10	OK	OK	OK
10.20	OK	OK	OK
10.30	OK	OK	OK
10.40	OK	OK	OK
10.50	OK	OK	OK
10.60	OK	OK	OK
10.70	OK	OK	OK
10.80	OK	OK	OK
10.90	OK	OK	OK
11.00	OK	OK	OK
11.10	OK	OK	OK
11.20	OK	OK	OK
11.30	OK	OK	OK
11.40	OK	OK	OK
11.50	OK	OK	OK
11.60	OK	OK	OK
11.70	OK	OK	OK
11.80	OK	OK	OK
11.90	OK	OK	OK
12.00	OK	OK	OK

83% 83% 91%

66% Refr

66% Refr

1780 E

Print 24 records regular  
blanks but with only  
500 lbs pressure.



Prime Cuban

Soft Mexican

Gas house Tar,

Gilsonite

with Solvent Nap. in place of  
alcohol - not so strong as

Resin -

Wood Tar pitch is as  
strong as Resin -

up to 26<sup>th</sup> of July records

had poor dress test 50 to 60  
+ less, on 26<sup>th</sup> (they run up to  
over 100 at 27<sup>th</sup> then went  
to 100% (10) 120 + continued  
120 up to date Aug 2<sup>nd</sup>

Hoffman says 3 things

took place at 26<sup>th</sup> + 27<sup>th</sup>  
or close thereto -

$\frac{1}{2}$  Norway +  $\frac{1}{2}$  Carrago powder  
stalled + has continued to  
date -

Previously from 14<sup>th</sup>  $\frac{1}{2}$  Dupont  
+  $\frac{1}{2}$  Norway used -

2<sup>nd</sup> Change Changed room from  
Genl Naval stores to Columbia  
Stores -

2<sup>nd</sup> Change Powder kept much  
longer before use up to 31<sup>st</sup> July

[ITEM(S) FOUND IN BOOK]

Dimondie -

all these are good  
records nothing  
that needs repair  
& no wear

Total 7 - 100%

looks good

8

[ITEM(S) FOUND IN BOOK]

1781 blank schedule 11 Runs 131 Prints

89%

Req 600 of schedule 10 Runs 120 Prints

59%

Req 600 Lbs. 1781 48 prints

70.5

Shpr Edges 600 of sched

76.5

Sharp Edges - 96 prints

92.5

Sharp Edges 1781 - 48 prints

97.5

Less sharp 1781 24 prints

84%

[ITEM(S) FOUND IN BOOK]

Hawaiian 519.  
No signs wear &  
OK ~~no~~ wear \*

187 thrust  
Mediation - OK no wear  
OK for surface cracks

225 ~~444~~  
America Her's my boy  
No cracks no wear  
OK

220  
Everybody loves A (as in A)  
3 cracks near (front)  
may be blank - OK no wear

[ITEM(S) FOUND IN BOOK]

Cavalera - 100-  
No leg cracks OK  
No wai -

160  
Avellana -  
no large cracks OK  
no wai -

American Aers  
H45 OK



[ITEM(S) FOUND IN BOOK]

1	Very crackly	<del>Shut</del> Redden
2	" "	
<hr/>		
1	Terrible Cracks	Run
2	" "	" "
<hr/>		
1	Very bad band	Run
2	" "	Chin

Can't see anyone to  
 move, the papers  
 must have segregated -  
 & coarse on blank  
 faces -

[ITEM(S) FOUND IN BOOK]

103	113	120
80	102	120
57	100	120
70	94	120
53	68	120
55	64	120
60	22	120
56	70	120
48	76	120
56	120	120
47	51	120
23	92	120
65	45	99
56	81	87
54	110	120
39	114	112
74	104	116
116	79	
85	120	27 <sup>th</sup>
68	120	

26th to 30th Aug  
 Remained in  
 11 to 14th during the  
 previous month

24th 1/2 morning  
 1/2 game  
 + Ever since

25th Chgo Rain  
 from 1st Naval  
 down to Calhoun

600 B Russia.

[illegible]

[ITEM(S) FOUND IN BOOK]

850 lbs pressure 120 lbs 5.8% OK  
 800 " " " " 91% OK  
 750 " " " " 83% OK  
 700 " " " " 100% OK  
 650 " " " " 83% OK  
 600 " " " " 100% OK

850	25	58
800	33	91
750	47	83
700	47	100
650	58	83
600	58	100
600	100	

watched -

[ITEM(S) FOUND IN BOOK]

7/12/17	--	--	12 hours
" 11 "	--	--	40 "
" 12 "	--	--	20 <sup>minutes</sup>
" 13 "	--	--	1 hour
" 16 "	--	--	24 "
" 17 "	--	--	12 "
" 18 "	--	--	12 "
" 19 "	--	--	1 "
" 20 "	--	--	1 "
" 21 "	--	--	1 "
" 23 "	--	--	24 "
" 24 "	--	--	16 "
" 25 "	--	--	6 "
" 26 "	--	--	11 "
" 27 "	--	--	14 "
" 28 "	--	--	16 "
" 29 "	--	--	40 "
" 30 "	--	--	40 "
" 31 "	--	--	20 "

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 25**  
**Notebook, N-17-08-06.2**

This notebook was used by William W. Dinwiddie, Archie D. Hoffman, and possibly other experimenters during August 1917-March 1918 for notes on efforts to improve the surface quality of Edison disc records. There are occasional comments by Edison on the work performed. The entries pertain primarily to a sequence of experiments numbered from 1801E to 1896E. Most involve experimental lots of record blanks constructed by different methods or prepared with different ingredients, including wood flour purchased from various suppliers. Some of the experiments involve different varnish compounds and variations in the methods of applying it. One note details the "actual process of making varnish." A few entries refer to "Inspection" books A and B (N-17-08-13 and N-17-08-31 [not selected] in Notebooks by Other Experimenters—Phonograph Record Experiments—Record Inspection Books). There are also references to "Rice's book" (G. B. Rice Non-experimental Notebook, N-17-09-25 [not selected]) and to suggestions by Charles G. Kircher and an experimenter named Gray. The notes often take the form of instructions describing the experimental records wanted, accompanied by evaluations of the test records produced. The front and back covers are labeled "25." The pages are unnumbered. Approximately 160 pages have been used.

1801-E

[illegible]

100%

15.  $\frac{1}{2}$ 

1801-E Make one drier full regular  
1738-E except use all  
Dupont Wood flour  
Keep 5-lb sample of wood  
flour for tests later.

Records

407

discards { 2 pull onto  
1 curved edge  
4 parallel dr -  
2 wood in blank  
eye { 5 metal " "  
1 stain  
13 low spots  
2 rough spots

machine  
and  
final

{ 13 - rough spots  
 5 anaps  
 16 claims  
 66 total discards

407)  $\overset{ok}{\overline{341}} \overset{ok}{\overline{3256}} \left( 83.7\% \right)$   
 $\underline{1540}$   
 $\underline{1421}$   
 $\underline{3190}$





1803-E

BR

\*

OK

3

OK  
OK

•

ENC

37

(2)

08

14

6.

②

7

1

(

9

100.%

 $100\% \times$ 

Drop test Caliper Points

1. — 20 228.5

2 — 20 198

2 — 14 1201.0

— 20 — 203. V

20 2195

9 199

103 Times

1803-E Make one drier full of regular 1738-E powder except use all Norway wood flour. Keep 5 lb. sample of wood flour for tests later.



8/8/17

1805-E Cool Pipe

OK	x	Drop test	Caliper Prints
OK	x	1	14 .227.1
OK	x	2	10 .223.1
OK	x	3	10 .224
OK	x	4	3 .217
OK	x	5	20 .220
OK	x	6	7 .225

64 times

1054 Unit # 6  
433 Records respected  
363 Records of final  
15.6°

1 Turned Out Puts

2 Printed Edges

19 Printed Edges

1 Printed Edges

35 Printed Edges

2 Printed Edges

1 Printed Edge

73 Minutes

91°

100°

91°

91°

20 Experiment 1822

1805-E

Make 500 blanks regular except  
keep pressure on hydraulic, print up  
to full pressure for 5 seconds on  
every blank -

Turns and print regular -  
Send 24 to Miller -

1805-E - 1334-F

OK	x	Drop test	
OK	x	1	5
OK	x	2	3
OK	x	3	20
OK	x	4	1
OK	x	5	8
OK	x	6	7
OK	x		43 times
OK	x		Inspected 434 Blanks
OK	x		573 Records
OK	x		903°

100°

100°

20

1806-E

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

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OK

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OK

OK

OK

OK

OK

OK

OK

OK

Drop Test Qualifier Points

1. — 18 .227

2. — 20 .225

3. — 20 .218

4. — 16 .226

5. — 20 .222

6. — 20 .227.5

11 4 Times

100.%

100.%

1806-E Make two rounds regular  
1738-1781 Blankets except in  
large press use only 400 lbs pressure.  
Varnish and print regular  
send to Miller -

1807-E

Drop test		Calafon Route		
OH	OH	1. ---	6	231.5
OH	OH	2. ---	19	208.5
OH	OH	3. ---	20	218.5
OH	OH	4. ---	16	226.5
OH	OH	5. ---	20	225
OH	OH	6. ---	20	238.5

8 3/3 %

90. %

1807-E Make two rounds regular  
Blanks 1738-1781 - to check  
1806 and 1808 -  
Varnish and print regular -  
Send to Miller -

Blanco 1738-1781 - to check

1806 and 1808—

Varnish and print regular.  
Send to Miller.

Send to Miller.

1808-E

Sharp test Calypso Bumble

OK OK	X	OK OK	X	1. — 20	.207
OK OK	X	OK OK	X	2. — 4	.2195
OK OK	X	OK OK	X	3. — 30	.220
OK OK	X	OK OK	X	4. — 30	.225
OK OK	X	OK OK	X	5. — 20	.2175
OK OK	X	OK OK	X	6. — 30	.205
10 4 times					

100. %

 $91\frac{2}{3}\%$ 

1808-E

Make two rounds reg blanks  
1738-1781 except 3-50.00s pressure  
on large press  
vanish and print regular  
send to Miller.







5/10/9

1811E

[illegible]

Low Spot	5. Cracked
Low Spot	blanch

Blank

83 1/2 %	83 1/2 %
----------	----------

1811-E

Make one drier full regular  
1738-E powder  $\frac{1}{3}$  each Dupont,  
Garniques and Union wool flour







8/10/12.

1815-E

[illegible]

1815-E Make 4 rounds holding pressure  
on packing press for 5 seconds - like 1805.  
then keep pressure down to 400 lbs on  
the large press like 1806-E  
Variable and joint regular -

Long Bevel

5/12/17

1816-1817

[illegible]

1816-E

1816-E  
Make 4 rounds regular blanks  
except hold steam pressure on large  
press down to 50 pounds, otherwise  
regular schedule  
varnish and print regular  
send all to Miller.

5/10/17

1877

[illegible]

Clanspot

91%

50<sup>c</sup>

1817-E

Repeat 1812 - Make 1000 blanks  
send 24 to Miller -

between the  $\frac{1}{2}$  inch rubber and the press plate -

408 Ресурсы мусора

390 Record Book, June 6

71.5 @ 15.

2 Thomas Paine

16 Parallel lines.

1 March 1965

6 Linear

89 Periodic Sorts

1. *Flavio*

— 1/2 doz. Sp. 2  
1/2 doz. 1/2 doz.

Long, David

8/9/17

1875

[illegible]

-1818-E

- also see 1971 -

Make 4 rounds regular  
blankets except keep pressure on  
large press down to 400 pounds.  
same as 1806-E-

Germanish and print regular  
Send all to Miller —

1815-E Duplicate

8.3

100%      100%      100%



1819-E

1819-E Change pressure on large  
blow pressure from 600 lbs to  
500 pounds all regular  
work - 11-AM August 10-1917

Unit # 6 1334 Poudre  
470 Pioneer mountain  
390 On final  
82.95.

5 Varnish  
1 Quince  
4 Wall  
13 Sticks  
8 Sugar  
45 R  
1/2 lb. Butter

See Inspection Book A  
Page

907 Records	73.4 %	25.	528 Records	65.3 %	50.
2261 "	59.2 "	30.	1459 "	77.4 "	57.
1141 "	54.9 "	33.	2378 "	71. "	52.
251 "	48.2 "	34.	2488 "	70. "	53.
885 "	56. "	35.	3130 "	75.3 "	54.
1582 "	54.4 "	36.	783 "	63.2 "	55.
2848 "	74.5 "	37.	3387 "	77. "	56.
3209 "	67.6 "	38.	1067 "	74.5 "	58.
445 "	62.2 "	39.	1619 "	50.9 "	65.
3437 "	57.2 "	43.	591 "	78.3 "	69.
1137 "	64.2 "	46.	596 "	71.6 "	71.
2540 "	52. "	47.	1854 "	71.4 "	72.
4735 "	51.4 "	49.			

Page

Page-

810

8/15/17

520.4

1520 Public[illegible]91<sup>23</sup>

91%

3 Hawks Inn  
after coming  
from town

91.0%

1820-E *Spizella socialis* Lawrence

Thrushes & grackles live in the  
3 coats of Spanish Bonnet  
between here & over

Wrote 9 letters and recd.  
70 letters

5413



1822 - F Same as 1805'

Unit # 4 - 104A Power Bridge.

420 Rec'd. Inspected.

275101 min (654,8)

6 Grand Hall  
44 Parakee Blue  
1 Parakee Blue  
1 Yellow Macaw  
2 Red Spot  
9 Orange Spot  
2 Yellow Spot  
1 Green

275 (about 1000)

432 Records, Inspector.

277<sup>n</sup><sub>A</sub> facial (64.1%)

1034 Unit # 2  
3 Hammered Cuts  
53 Parallel Cuts  
2 parallel  
38 Low Spine  
3 Low  
6 Hammered Spent  
1 Hammered  
1 Hammered  
1 Hammered

25.5 total dissolved

106A Sony CCD-100

267 Rhombus inscriptus

97 Acad. Belgica

73.75

2 Parallel Ribs.  
 16 Parallel Ribs.  
 5 Stripes  
 18 Low Spots  
 20 Rough Spots  
2 Snags  
 70 total Ribs and

B-1		B-2	
2A	x	2A	x
2B	x	2B	x
2C	x	2C	x
2D	x	2D	x
2E	x	2E	x
2F	x	2F	x
2G	x	2G	x
2H	x	2H	x
2I	x	2I	x
2J	x	2J	x
2K	x	2K	x
2L	x	2L	x
2M	x	2M	x
2N	x	2N	x
2O	x	2O	x
2P	x	2P	x
2Q	x	2Q	x
2R	x	2R	x
2S	x	2S	x
2T	x	2T	x
2U	x	2U	x
2V	x	2V	x
2W	x	2W	x
2X	x	2X	x
2Y	x	2Y	x
2Z	x	2Z	x
2AA	x	2AA	x
2AB	x	2AB	x
2AC	x	2AC	x
2AD	x	2AD	x
2AE	x	2AE	x
2AF	x	2AF	x
2AG	x	2AG	x
2AH	x	2AH	x
2AI	x	2AI	x
2AJ	x	2AJ	x
2AK	x	2AK	x
2AL	x	2AL	x
2AM	x	2AM	x
2AN	x	2AN	x
2AO	x	2AO	x
2AP	x	2AP	x
2AQ	x	2AQ	x
2AR	x	2AR	x
2AS	x	2AS	x
2AT	x	2AT	x
2AU	x	2AU	x
2AV	x	2AV	x
2AW	x	2AW	x
2AX	x	2AX	x
2AY	x	2AY	x
2AZ	x	2AZ	x
2BA	x	2BA	x
2BB	x	2BB	x
2BC	x	2BC	x
2BD	x	2BD	x
2BE	x	2BE	x
2BF	x	2BF	x
2BG	x	2BG	x
2BH	x	2BH	x
2BI	x	2BI	x
2BJ	x	2BJ	x
2BK	x	2BK	x
2BL	x	2BL	x
2BM	x	2BM	x
2BN	x	2BN	x
2BO	x	2BO	x
2BP	x	2BP	x
2BQ	x	2BQ	x
2BR	x	2BR	x
2BS	x	2BS	x
2BT	x	2BT	x
2BU	x	2BU	x
2BV	x	2BV	x
2BW	x	2BW	x
2BX	x	2BX	x
2BY	x	2BY	x
2BZ	x	2BZ	x
2CA	x	2CA	x
2CB	x	2CB	x
2CC	x	2CC	x
2CD	x	2CD	x
2CE	x	2CE	x
2CF	x	2CF	x
2CG	x	2CG	x
2CH	x	2CH	x
2CI	x	2CI	x
2CJ	x	2CJ	x
2CK	x	2CK	x
2CL	x	2CL	x
2CM	x	2CM	x
2CN	x	2CN	x
2CO	x	2CO	x
2CP	x	2CP	x
2CQ	x	2CQ	x
2CR	x	2CR	x
2CS	x	2CS	x
2CT	x	2CT	x
2CU	x	2CU	x
2CV	x	2CV	x
2CW	x	2CW	x
2CX	x	2CX	x
2CY	x	2CY	x
2CZ	x	2CZ	x
2DA	x	2DA	x
2DB	x	2DB	x
2DC	x	2DC	x
2DD	x	2DD	x
2DE	x	2DE	x
2DF	x	2DF	x
2DG	x	2DG	x
2DH	x	2DH	x
2DI	x	2DI	x
2DJ	x	2DJ	x
2DK	x	2DK	x
2DL	x</		

1823-E

Mark enough blanks for 4 rounds  
with pencil B on bottom side -  
Varnish 2 rounds first on the  
bottom - mark them B-1 -  
Varnish 2 rounds first on the top  
mark them B-2  
Print regular - send all  
to Miller -

1824-E

See Inspection Book A.		Page
1500 Records	81.2 %	62.
1161 "	79.5 "	67.
1372 "	81.1 "	68.
997 "	82. "	70.
6633 "	82.5 "	73.
5939 "	83.9 "	74.
1173 "	65.7 "	81.
811 "	87.8 "	82.
3066 "	83.8 "	83.
1273 "	86.6 "	84.
3678 "	85. "	85.
673 "	81.8 "	86.
2142 "	75.8 "	87.
579 "	85.1 "	88.
3273 "	75.5 "	93.
3536 "	78. "	94.
3268 "	82. "	98.
2609 "	82. "	99.
491 "	76.5 "	102.
284 "	76. "	103.
1262 "	84.6 "	107.
144 "	74.3 "	108.
665 "	81.2 "	113.
478 "	76.9 "	114.
1316 "	78.5 "	115.

fourth

1824-E Regular blanks August 16-17
Same as 1666-E for proportions of wood-chalk etc.
" " 1738-E method of mixing,
" " 1508-E method of drying,
" " 1654-E method of grinding and screening,
" " 1605-E packing press rubber pads,
" " 1675 1/2-E packing press pressure 640 lbs,
" " 1781-E Blanks press schedule
" " 1819-E)
" " 1810-E wood flows used -
" " 1747-E Bending blanks

See Inspection Book A.		Page
157 Records	87.3 %	131.
335 "	79.1 "	132.
214 "	89.2 "	135.
3736 "	81.5 "	136.
3318 "	83.5 "	138.
2349 "	78.9 "	143.
1830 "	77.9 "	144.
1704 "	84.6 "	146.

8/21/17

1820-E-1805-E

1825-E-1819-E

[illegible]

100%

100.%

100.7%

100.  $\frac{1}{2}$  ...

1. *Acacia*  
2. *Alnus*  
3. *Chippa*

1 Discard  
blank  
1 Chipped

1825-E

Same as 1824-E except  
use 1

60 lbs wood  
40 lbs chalk  
14 lbs Borax  
50 lbs alcohol  
2 lbs Gas

Make and drum of above  
gun - make up the powder  
and then we will know whether  
to use 1806 or 1819 for moulding.

1825-E-1827-E

8/21/17

[illegible]

1. All cracked pipes  
Remain out of order

CS11

8/17/12

1521-E

[illegible]

100%

۱۰۰۰۰

91-1/2

3°

3<sup>rd</sup> March 1881  
Dorchester - Dorset

1821-E

OK 016		OK 016		OK 016		OK 016		X
OK 017		OK 017		OK 017		OK 017		X
OK 018		OK 018		OK 018		OK 018		X
OK 019		OK 019		OK 019		OK 019		X
OK 020		OK 020		OK 020		OK 020		X
OK 021		OK 021		OK 021		OK 021		X
OK 022		OK 022		OK 022		OK 022		X
OK 023		OK 023		OK 023		OK 023		X
OK 024		OK 024		OK 024		OK 024		X
OK 025		OK 025		OK 025		OK 025		X
OK 026		OK 026		OK 026		OK 026		X
OK 027		OK 027		OK 027		OK 027		X
OK 028		OK 028		OK 028		OK 028		X
OK 029		OK 029		OK 029		OK 029		X
OK 030		OK 030		OK 030		OK 030		X
OK 031		OK 031		OK 031		OK 031		X
OK 032		OK 032		OK 032		OK 032		X
OK 033		OK 033		OK 033		OK 033		X
OK 034		OK 034		OK 034		OK 034		X
OK 035		OK 035		OK 035		OK 035		X
OK 036		OK 036		OK 036		OK 036		X
OK 037		OK 037		OK 037		OK 037		X
OK 038		OK 038		OK 038		OK 038		X
OK 039		OK 039		OK 039		OK 039		X
OK 040		OK 040		OK 040		OK 040		X
OK 041		OK 041		OK 041		OK 041		X
OK 042		OK 042		OK 042		OK 042		X
OK 043		OK 043		OK 043		OK 043		X
OK 044		OK 044		OK 044		OK 044		X
OK 045		OK 045		OK 045		OK 045		X
OK 046		OK 046		OK 046		OK 046		X
OK 047		OK 047		OK 047		OK 047		X
OK 048		OK 048		OK 048		OK 048		X
OK 049		OK 049		OK 049		OK 049		X
OK 050		OK 050		OK 050		OK 050		X
OK 051		OK 051		OK 051		OK 051		X
OK 052		OK 052		OK 052		OK 052		X
OK 053		OK 053		OK 053		OK 053		X
OK 054		OK 054		OK 054		OK 054		X
OK 055		OK 055		OK 055		OK 055		X
OK 056		OK 056		OK 056		OK 056		X
OK 057		OK 057		OK 057		OK 057		X
OK 058		OK 058		OK 058		OK 058		X
OK 059		OK 059		OK 059		OK 059		X
OK 060		OK 060		OK 060		OK 060		X
OK 061		OK 061		OK 061		OK 061		X
OK 062		OK 062		OK 062		OK 062		X
OK 063		OK 063		OK 063		OK 063		X
OK 064		OK 064		OK 064		OK 064		X
OK 065		OK 065		OK 065		OK 065		X
OK 066		OK 066		OK 066		OK 066		X
OK 067		OK 067		OK 067		OK 067		X
OK 068		OK 068		OK 068		OK 068		X
OK 069		OK 069		OK 069		OK 069		X
OK 070		OK 070		OK 070		OK 070		X
OK 071		OK 071		OK 071		OK 071		X
OK 072		OK 072		OK 072		OK 072		X
OK 073		OK 073		OK 073		OK 073		X
OK 074		OK 074		OK 074		OK 074		X
OK 075		OK 075		OK 075		OK 075		X
OK 076		OK 076		OK 076		OK 076		X
OK 077		OK 077		OK 077		OK 077		X
OK 078		OK 078		OK 078		OK 078		X
OK 079		OK 079		OK 079		OK 079		X
OK 080		OK 080		OK 080		OK 080		X
OK 081		OK 081		OK 081		OK 081		X
OK 082		OK 082		OK 082		OK 082		X
OK 083		OK 083		OK 083		OK 083		X
OK 084		OK 084		OK 084		OK 084		X
OK 085		OK 085		OK 085		OK 085		X
OK 086		OK 086		OK 086		OK 086		X
OK 087		OK 087		OK 087		OK 087		X
OK 088		OK 088		OK 088		OK 088		X
OK 089		OK 089		OK 089		OK 089		X
OK 090		OK 090		OK 090		OK 090		X
OK 091		OK 091		OK 091		OK 091		X
OK 092		OK 092		OK 092		OK 092		X
OK 093		OK 093		OK 093		OK 093		X
OK 094		OK 094		OK 094		OK 094		X
OK 095		OK 095		OK 095		OK 095		X
OK 096		OK 096		OK 096		OK 096		X
OK 097		OK 097		OK 097		OK 097		X
OK 098		OK 098		OK 098		OK 098		X
OK 099		OK 099		OK 099		OK 099		X
OK 100		OK 100		OK 100		OK 100		X

100. %

100. %

100.%

100.76

of Allen, Coach  
of the coming out  
of the





8/22/17

1826-E-1827-E

OK  
OK

X

OK  
OK

Drop test Calipan Point

1. — 1. 195.5

2. — 2. 211.5

3. — 2.0 201.5

4. — 2.0 206.5

5. — 2.0 207

6. — 2. 192

68 turns

OK  
OK

X

OK  
OKOK  
OK

X

OK  
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OK  
OK

Through Dept

See Inspection Book A

Page

365 Records 72.8% 109.

100.0%

91 2/3%

1826-E

Same as 1824-E except use —

60 lbs wood

40 lbs chalk

13 lbs Rosin

50 lbs Alcohol

2 lbs Gas Blender

Make one drum above given  
make up 200 blanks on 1806  
blank schedule and balance  
on 1819 Schedule — send 24 of  
each to Building #4,

1826-E-1806-E

8/23/17

OK  
OK

X

OK  
OKOK  
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X

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OK

X

OK  
OK

100%

91 2/3%

See Inspection Book A

Page

539 Records 84.0% 91

8/21/17

1827-E

See Inspection Book A

				Page
OK OK	X	OK OK	X	4931 Records 79.9% 141
OK OK	X	OK OK	X	5150 " 76.1% 142
OK OK	X	OK OK	X	1015 " 80.3% 140
OK OK	X	OK OK	X	2780 " 79.9% 147
OK OK	X	OK OK	X	8852 " 77.9% 148
OK OK	X	OK OK	X	5556 " 77.6% 149
OK OK	X	OK OK	X	2834 " 75.6% 151
OK OK	X	OK OK	X	341 " 65.6% 152
OK OK	X	OK OK	X	1281 " 69.2% 153
OK OK	X	OK OK	X	750 " 59.7% 154
OK OK	X	OK OK	X	1161 " 63.4% 155
OK OK	X	OK OK	X	1889 " 74.8% 165
OK OK	X	OK OK	X	187 " 74.8% 172
OK OK	X	OK OK	X	769 " 69.8% 173
OK OK	X	OK OK	X	4983 " 71. % 174
OK OK	X	OK OK	X	1062 " 66.6% 175
OK OK	X	OK OK	X	1572 " 76.7% 176

100. %

91 2/3 %

1827-E

Same as 1824 except change  
pressure on blank punch from 5 bolts  
to 450 lbs.

Pressure Changed to 450 lbs  
9.30 Aul 8/21/17

See Inspection Book A

Page

301 Records	90.1 %	75
407 "	91.5 %	76
3780 "	82.6 %	100
3012 "	80.2 %	101
1840 "	77.2 %	104
1840 "	76.5 %	105
1646 "	82.8 %	111
3336 "	85.1 %	118
2408 "	81.9 %	121
324 "	86.4 %	122
3165 "	83.4 %	123
3718 "	84.8 %	127
1949 "	79.5 %	128
1701 "	84.8 %	129
364 "	88.1 %	133
1902 "	88.2 %	137
1571 "	84.2 %	139
1272 "	73.2 %	140
116	76.7	end B. 21

1828-E-1827-E

[illegible]

1828-E Same as 1824 except as follows:

wood flower like 1811  $\frac{1}{3}$  Hornbeek (Garbique)  
 $\frac{1}{3}$  Dupont.  
 $\frac{1}{3}$  Union.

1. One bale of each is opened up and  
shoveled into the gutter - a shovel  
from each bale, then three more  
bales are opened up etc. No positions  
are not exact as the weighing,  
2. 450 lbs pressure on blank prior to 1827;  
3. 13 lbs down like 1826.

1828-E

01K	X	01K	X
01L		01L	
01R	X	01R	X
01S		01S	
01T		01T	
01U	X	01U	X
01V		01V	
01W	X	01W	X
01X		01X	
01Y	X	01Y	X
01Z		01Z	
02K		02K	
02L		02L	
02R	X	02R	X
02S		02S	
02T		02T	
02U	X	02U	X
02V		02V	
02W		02W	
02X	X	02X	X
02Y		02Y	
02Z		02Z	
03K	X	03K	X
03L		03L	
03R		03R	
03S		03S	
03T		03T	
03U	X	03U	X
03V		03V	
03W		03W	
03X		03X	
03Y		03Y	
03Z		03Z	
04K	X	04K	X
04L		04L	
04R		04R	
04S		04S	
04T		04T	
04U	X	04U	X
04V		04V	
04W		04W	
04X		04X	
04Y		04Y	
04Z		04Z	
05K	X	05K	X
05L		05L	
05R		05R	
05S		05S	
05T		05T	
05U	X	05U	X
05V		05V	
05W		05W	
05X		05X	
05Y		05Y	
05Z		05Z	
06K	X	06K	X
06L		06L	
06R		06R	
06S		06S	
06T		06T	
06U	X	06U	X
06V		06V	
06W		06W	
06X		06X	
06Y		06Y	
06Z		06Z	
07K	X	07K	X
07L		07L	
07R		07R	
07S		07S	
07T		07T	
07U	X	07U	X
07V		07V	
07W		07W	
07X		07X	
07Y		07Y	
07Z		07Z	
08K	X	08K	X
08L		08L	
08R		08R	
08S		08S	
08T		08T	
08U	X	08U	X
08V		08V	
08W		08W	
08X		08X	
08Y		08Y	
08Z		08Z	
09K	X	09K	X
09L		09L	
09R		09R	
09S		09S	
09T		09T	
09U	X	09U	X
09V		09V	
09W		09W	
09X		09X	
09Y		09Y	
09Z		09Z	
100.%		100.%	

driscoll's  
3 Brande Chicken

8/28/17

1828-E

OK  
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Low alk

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x Deep Test Caliper Points

1	—	1	.231
2	—	8	.214.5
3	—	2	.227.5
4	—	12	.212.5
5	—	3	.211
6	—	5	.228

31 Times

See Inspection Book A

Page

167	Records	67.1% - 15.0
1064	"	77.1% - 15.6
833	"	78.5% - 15.7
162	"	91.3% - 15.8
424	"	72.3% - 15.9
180	"	58.8% - 16.0
1012	"	76.1% - 16.2
180	"	82.7% - 16.1
523	"	77.4% - 16.2
4002	"	71.9% - 16.4
661	"	76.1% - 16.6
760	"	86.5% - 16.7
407	"	85.5% - 17.0
350	"	85.1% - 17.1

91% %

100.0%

1828-E Page

See Inspection Book A

1652	Records	88.6% - 17.5	667
2946	"	88.3% - 18.0	667
4371	"	85.1% - 18.1	667
3072	"	82.7% - 19.1	667
3011	"	77.1% - 19.0	667
83	"	89.1% - 19.1	667
114	"	95.6% - 19.2	667
3994	"	76.2% - 19.3	667
1735	"	81.1% - 19.4	667
1570	"	81.3% - 19.5	667
3347	Records	76.4% - 19.6	667
1441	"	80.3% - 19.7	667
1634	"	70.9% - 19.8	667
1333	"	78.6% - 19.9	667
2116	"	81.5% - 20.0	667
1202	"	76.5% - 20.1	667
3337	"	80.2% - 20.2	667
1520	"	75.8% - 20.3	667
298	"	87.9% - 20.4	667
2199	"	78.2% - 20.5	667
2480	"	81.1% - 20.6	667
248	"	89.9% - 20.7	667
680	"	75.8% - 20.8	667
3540	"	76.4% - 20.9	667

A+B Page

76.4	"	25
78.3	"	26
85.9	"	28
87.1	"	29
71.5	"	32
91.3	"	33
76.2	"	34
81.1	"	35
84.7	"	36
80.7	"	37
85.2	"	38
82.7	"	39
85.4	"	40
85.4	"	41
82.2	"	42
81.5	"	47
77.9	"	49
77.1	"	51
66.2	"	52
82.7	"	53
77.2	"	54
85.7	"	56
84.1	"	57

8/31/17

1829-E

[illegible]

LP Rad. Cond.

OK  
OK

1 Lincard  
Blank  
Poor Var  
100. %

 $9\frac{2}{3}\%$ 

Drop test Galipien Point		
x	1. —	8 .213.
x	2. —	2 .215.5
x	3. —	10 .213.5
x	4. —	19 .220.5
x	5. —	9 .197.5
x	6. —	2 .199
50 times		

1829-E

Same as 1828 except use  
14 lbs Protein instead of 13 lbs.









1832-E

A. 12 blanks varnished regular let stand 20 minutes and put on another coat then let stand until dry enough for a third coat to be applied and varnish a third time print regular on nickel moulds -

B. Same as A only put on just two coats of varnish.

C. Same as A only put on just one coat of varnish.

Use the same lot of blanks, same varnish, same moulds, and same operators for all three lots. Hold for WSD.

all seemed to coat into blank in baking and in the press. sounded a little better with more coats, looked more shiny when it came out of the oven but it all coats in in the press.

1833-E

Same as 1828-E except that the  
sawd flour is weighed out in equal  
thirds (this gives a larger proportion  
of Union sawd than 1828 as the Union  
wood bales are smaller) On the mills  
one mill of each pair has a 24 mesh  
screen and the other mill a 30 mesh  
both were 30 mesh on 1828 and caused  
continual trouble.

- Some are marked 1828-E-S.



1855-60

JK  
Y

x



x

OR  
CA

OK  
OK

4

OK  
OK

OK

✕

54

See

人

OK

22

6

CA

On

—

OK

Case

✕

PA

Q.10

3

34

OK

OK

OK

1

64

1

64

4

22

1000  
m. section

2.50 per inch  
after coming  
to me @ me

1835-E

Same as 1834 except put the "Shino" varnish on first.

1835 sounds a little louder than the other three





1838-E

Same as 1833-E except  $\frac{1}{2}$  Sargent  
and  $\frac{1}{2}$  Union wood flower.



1839-E

Same as 1838-E except that all mills  
have 30 mesh screen. changes in work from  
permits this now, 1½ cans of mine work that  
gave the trouble "sidetracked" to be worked off  
later a little at a time,

Drop test

Oct. 11, 12.

1	—	8
2	—	6
3	—	20
4	—	3
5	—	17
6	—	11
		<hr/>
		65

1840-C.

Same as 1839 except and  
14 lbs Protein like 1829 -

Make ~~two~~ <sup>three</sup> drums - (2793 drums)

Washed well in milk -

Gave 100% oil in moulting -

Actual process of Making Varnish 1841-E

Measure  $5\frac{1}{4}$  gallons Alcohol with measuring stick in milk can (one spirit can used)

Weight out 150 grammes phenol for each percent of Resphenol in the resin less than 25%

Example - if Resphenol is 15% weight out 7K 150g. = 1050 grammes phenol

Weight out 75% of 15000 g. = 1170 grammes of  $\frac{1}{4}$  - put in open mixer with alcohol and phenol.

Para solution is 1 part para to 20 parts alcohol =  $\frac{1}{21}$  1% para = 1500g. = 2150 grammes

Sandarae solution is 1 part Sandarae to 5 parts alcohol. 150 x 5 = 750 grammes = 1% Sandarae

Sandarae solution is weighed out in same pail as para, add 90g to the lot after para is weighed. All put into open mixer.

15000 grammes Resol resin sifted into open mixer slowly, after perfectly dissolved, filter thru two thicknesses B grade linen covered

Put three 10 gallon lots as above into enclosed mixer with 2106 grammes Shino - run one hour. Shino is put in dry after hours.

Put thru filter press and divided into three equal lots in milk cans. Filter press bed thickness grade D linen.

1167 grammes gas black added to each lot. Stirred in in a milk can then put thru small paint mill once and then thru large paint mill once.

Take viscosity of each 10 gallon lot. If viscosity is 8 min put in several pints of alcohol and take viscosity again. One pint may reduce viscosity 20 seconds. but this varies with the phenol resin. After one can is corrected the other cans can be corrected with fewer approximations.

Sample 9 - 10 gallon lots require 12 gallons alcohol to be added and produced 90% gallons

1841-E.

Large as 1471-E and 1019-E except - use 2% lampblack and 1% Shino -

When temp. is 70° and viscosity 1.29

1019-E

1511 Danisols

100 grammes of 16% solution

6" Phenol to make 1%

1" Para

1" Sandarae

7.5"  $\frac{1}{4}$  Para

15% Resol resin

5% of total put in mixer

10000 grammes Shino in 20000

paint mill

Viscosity 1.29

1471-E

10000 grammes 15.1% para

6.9% Phenol

1" Para

1" Sandarae

7.5"  $\frac{1}{4}$  Para

200" Resol resin

2.8% Shino or 1000

weight of above

run thru filter press

Shino - three times

paint mill

Start 150 lbs. white about 17% Alcohol

to make 5% Visc Varnish

one gallon is about 15 times the above - actually mixed in the gallon lots - 150 times above. see opp. page. for 5 min viscosity. about 120 times above

CR13

1542-C

Regular formula 1471-E  
except use 7.7 of 6/4 instead of 7.9  
Hemol in twin 16.1

Added

5.9

viscosity 2 min. in water O.K.  
Made 2 quarts -

1843-E Two bags wood flour from  
Kramer

Marked no 3 and no 3 Special  
test - 8.5 moisture 11.5 moisture  
2-6 Resin 2.8 Resin  
94% 30 mesh 100% 30 mesh  
84% 50 " 98% 50 mesh  
44% 100 " 79% 100 "  
32% 180 57% 180 "  
Use 25 lbs above mixed -  
25 lbs Union  
10 lbs Crane Union -

1844-E

Nov 15, 1917

Mould 12 - 4 OK.

Mould 12 -  $\frac{5}{9}$  OK. ~~to 20~~

Printed and all Pro Gots  
put up on the shelf in Bldg # 4 (11-15-17)

1844-E Solvent Naptha 'instead of Alcohol

1845-E

(Regular schedule for baking Varnishes)  
blanks is 3 hours at 130°F,  
Take out 100 blanks after baking only  
1 1/2 hours - inspect for low spots  
but for sweat.

#3

1839-C. Quid #10 - 1845-E 11-7-17.

9 Blanks inspected of Quid #10.

14 Sings for

14 Blanks Spots

12 Not inspected

30 Total blanks

This is not melanic change but due to the  
alcohol remaining in the lacquer or under  
the varnish W.O.

1846-E 100 blawhs same as 1845-E  
except Dated only one hour - Print regular,

except for low or rough spots & wear  
#1  
1839-E Unit # 4 Ls 1471.E. 11-7.

99 Alendin 1967 6 Blawhs O.T.

- 1 Longish
- 3 Shorts
- 1 Bigish
- 5 Longish
- 17 Longish
- 12 Longish
- 38 Longish

This is not a list of the items  
remaining in the Harvard records  
the Harvard records.



1847-C.

1848-E.

100 gms Regis 15.5% T.P.  
6.5 " Genol.  
1 " Genol.  
1 " Saydural  
7.5 " 4  
19.5 " Dr. Alge  
3 1/2 " P.B. + 1/2 " Linnos on  
Total weight of varnish



1850-E

Same as 1824-E except

75 lbs wood {trans. reg. 50 lbs.  
Union 25 lbs.

25 lbs chalk

12 lbs rosin

50 lbs alcohol

2 lbs gas blash

Make only one drier full and  
keep carefully separate from  
other powder,

Make up 100 blanks first for tests,  
varnish and print required, use  
test moulds on two prints for  
comparison of surface,

moulds dirty -

116 made 9 pullouts 3 each 3 thick edges

ginder sample 85% 180.

73% 350.

out 99% 180 85% 350 -  
ground and screened good,

1851-E

Powder screened thru 180 mesh hand screen, A

2689-H-3-38 } NS3-A metal mould  
2650-A-1-42 }

2689-H-3-38 } NS2-A  
2650-A-1-42 }

2689-H-3-25 } CS1-A copper mould  
4112-A-3-60XX }

Same powder not screened special - B

2689-H-3-38 } NS3-B  
2650-A-1-42 }

2650-H-3-38 } NS2-B  
2650-A-1-42 }

2689-H-3-25 } CS1-B  
4112-A-3-60XX }

Special screen powder all cracked but  
showed more quiet surface, tho not perfect. Too  
large a percent of wood taken out and looks like  
all chalk black - too solid - no elasticity.

Dec. 13. 1911

1852

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100%

1852.C.

Samuel 5303 Street  
of 1255.

354 Printed

- 2 Venus pull out.
- 2 P.V. on label.
- 3 cracked centers,
- 1 thin,
- 5 wedge.
- 3 scratches.
- 17 snags
- 15 rough spots -

Machine test 1 rough spot  
1 under  
9 sample

Total OK. 83.3%

1853-E

Small cylinder screen 10" x 32" with spiral conveyor inside 180 mesh wire, 8-ropes 6 times per revolution at one end, 24 convolutions of spiral,

100 lbs. powder - put thru -	
1 <sup>st</sup> time	35 1/2 lbs fine
tailings 2 <sup>d</sup> time	20 " fine
" 3 <sup>d</sup> time	10 " fine
	<hr/>
	65 1/2 total fine 34 1/2 lbs

Make fines into blanks, varnish and print on special selected rounds.

fine powder tested 100% 180 mesh  
83% 350 mesh  
tailings - 100% 180 mesh  
52% 350 mesh

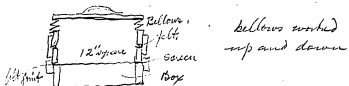
Shows that 12% of the 34 1/2 lbs or about 4 lbs of the original 100 lbs would not pass 180 mesh but the original 100 lbs was supposed to have been tested 99% 180 mesh -

All blanks but one cracked.

Screen is not efficient as tailings contain 83% 180 mesh and nearly all the wood,

1854-E

Experiment to free particles thru the screen by pulsations of air thru the screen both ways.



This process was very slow and only took out  $\frac{1}{2}$  of the fine after a very long time, (35 min)

40 gms  
after 35 minutes  
25 gms thru  
15 gms tailing



Two blanks made from this  
powder give very good surface  
but are not ideal - This does  
not solve the problem.

1855.E.

Same apparatus as 1854-E but with  
the lower box removed.

After 4 minutes only 10% of the  
tailings will pass thru 100 mesh screen.

This looks very promising -  
A larger <sup>air</sup> box to allow compression of  
the air will make this a very efficient  
machine.

Had son can fitted up to take place  
of box.

From River Books 7-11-82 EJR

1956-E Printing press  
Thick sides of wedge all on same side,

<sup>12</sup> Blanks selected for worst wedges			Prints at thick sides put together		
High	Low	Thy.	High	Low	Thy.
286	222	62	228	222	6
					improvement
					+ 56
287	195	92	210	199	11
					81
274	230	44	233	210	23
					21
276	215	61	222	208	15
					46
293	220	75	223	221	2
					73
263	193	70	214	196	18
					52
279	203	76	212	200	12
					64
258	210	48	213	185	28
					20
300	207	93	221	198	23
					70
266	209	57	224	194	30
					27
265	203	62	199	194	5
					57
280	228	52	222	211	11
					41
277	211	66	218	203	15
					51
					all 6th

This shows a great improvement in printing press of wedge blanks when the wedges are placed in the press with thick edges all to the same side - the average improvement is .051.

Same experiment was tried with blanks thick and thin edges alternating. All but one were improved - average improvement was only .015

2412. from Piece 1004 -

1857-E

Use a discarded record or a discarded varnished blank on each side of records in edging machine to prevent chipped edges on the outside blanks. Use this with the large clamping disc.

Dec 3-1917

1858-E

1841 varnish 3 minute viscosity.  
Blanks baked two hours at 130° F.

Blanks that show dull areas are  
revarnished with the same varnish  
except one minute viscosity the  
same as local patching, then  
baked again at 130° for 2 hours.

From December 17-17 all local  
patching discontinued for this process.  
From Dec 22 all blanks given two  
coats varnish as above except  
some carefully selected to keep  
ahead of painting.

5861 prints gave 87% OK on eye  
and machine inspection, and a very  
slightly better surface than one coat.

Troubles with many varieties of  
wood flow about this time made the  
results of all varnish experiments  
very uncertain.

1859-E

Same as 1958-E except that the thin coat is  $1\frac{1}{2}$  min viscosity instead of 1 min.

|| Varnish stoved out around the edges of prints and caused injury to moulds.

Suggest experiments with more Para and  $\frac{1}{4}$  to prevent this.

{ 33-12 was made up with  $1\frac{1}{2}\%$  Para  
34-13 was made with  $2\frac{1}{2}\%$  Para

1860-E

Same as 1858 E except that  
both coats are 3 min.

Same defect as 1859 only worse,  
suggested longer baking and higher  
temperature to cure varnish more -  
varnish baked + hours at 130° showed  
little if any improvement on flowing

Surface test 48 faces  
39 good  
8 fair  
1 run out at start

40 <sup>new</sup> inspected - no varnish defects -  
82 1/2% OK,

Surface test 44 good  
3 fair  
1 run out  
82 1/2% OK,

Surface test 48 faces  
45 good  
2 fair  
1 run out,  
65% OK

No varnish defects,

1861-E

one quart 3 min 1841 varnish  
except 7.9 of 6/4

varnish and bake 2 hrs at 130°F,  
re-varnish and bake again 2 hrs at 130°F,

Surface test

48 faces.

45 good

2 fair

1 run out at blast

No varnish defects,

65% Q12. all due to blank defects

---

1862-E

One grant 3 min 1841 varnish except

8.0 6/4

apply two coats to varnish as 1861-E

1830-E 1841 varnish,



Surface test 449 rods  
3 fair  
1 run out

400 rods tested 82.4% OK, no discards  
from variable defects,

1863-E

See quart 3 min 1941 barrels  
except 7.9 of 6/4 and 1.5 Pma.  
Apply 2 cents value as 1861-E

Surface test

47 good,  
1 fair.

40 printed 87  $\frac{5}{8}$ % OK, no varnish  
defects.

1864-E

One quart 3 min 1841 varnish except  
810 6/4 and 1.5" para  
applied <sup>to</sup> surface 1861-E

1865-E

Same as 1824 E

inc 20 lb minn

20 lb Dupont

20 lb granular wood

12 lb Picin

2 lb Lampblack

50 lb Alcohol

Run regular until granular wood stock  
is used then change to 1866-E

Varnished with 2 coats 1841-E - 5 min. dross.  
 152 prints. 8 pull onto on label. } Printed on ringrounds.  
 2 parallel cracks. }  
 1 thick. } 87.5% OK  
 5 snags. }  
 3 rough spots. }

164 prints }  
 1 pull onto on label }  
 1 radial crack }  
 82.9% OK } 5 wedges  
 8 thick } 5 pull onto on inside  
 1 snag }  
 1 silver spot }  
 1 rough spot, }

Drop test -  
 1 - 20  
 2 - 16  
 3 - 3  
 4 - 9  
 5 - 12  
 6 - 12  
 72

1866-E

1827 J. J. J. J. J.

Same as 1841-E except as follows -  
 use 30 lbs. brown  
 30 lbs. Dupont or Humboldt  
 12 lbs. Brown  
 2 lbs. Lampblack  
 50 lbs. Alcohol

} Union 9.9% moisture  
 Dupont 4.5% moisture.

1867-E suggested by Mr Gray.

Regular blank 1530  
Pressed between two polished moulds  
on regular printing schedule -  
Varnished one coat 3 min and 1841-E  
air dried  $\frac{3}{4}$  hour -  
2<sup>d</sup> coat same varnish 1841-E  
baked 2 hrs 130°  
Printed regular -  
very smooth surface -  
but not nearly as smooth as 1564.

1868-E suggested by M. L. Gray  
Same as 1867-E except baked  
~~same~~ after each coat of varnish.

Smells about same as 1867 but not  
as smooth as 1867.

78 faces tested for surface

77 good

1 run out at start.

Lucas test 250 times OK.

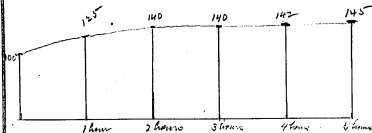
edging 100 %.

Much better surface than 1867-1868

1869-E.

Blowby 1530-E

Varnished with 1841-E-3 min viscosity - varnish  
two coats - air dried about 30 min between coats  
Baked on an old schedule used for transfer  
plates (marked NO 1 on metal template). Temperature  
run to 145°. Total time 5 hours.



Mr. Kichen suggested this schedule to dry out  
the alcohol at the lower temperature so as to stop  
the bubbles which troubled us with very thick  
varnish. The long bake cures the varnish to  
the rubber state and prevents flowing over  
edges and making big bubbles.

1870-E

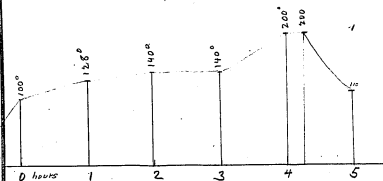
no 3 Baker

Blank 1830 E

Reel no 22 - no 3 Baker

2 coats 1841-E varnish air dry  $\frac{1}{2}$  hour between coats.

Bake on diagram shown below.



Surface test on steps.

46 good

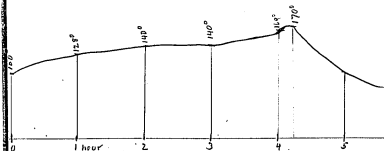
8  $\frac{1}{2}$  D. at start

2 fair.

Blanks full of blisters but print out OK.



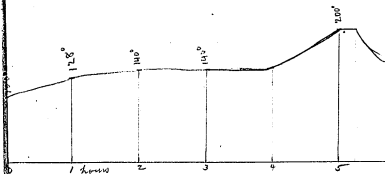
1871-E Kindred no 23  
Blauho 1830-E



Flow in printing.

1872-E

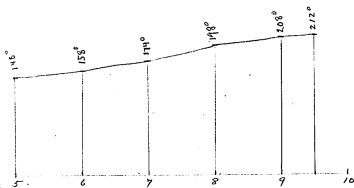
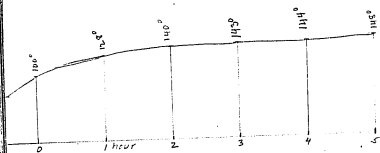
Kindness 720 24 720 4 Baiter -



Baiter full of blisters

1873-E

Bathing schedule.



1856-E Blauha Panimold two coats 1841-E New 3rd die.

1395 Painted	Inner wall coat	15
1037 G.K.	Exterior edge	17
358 Discards	Bottom side	21
	Parallel ch	50
	Parallel back	132
	Ends	19
	Top	7
	Twice	5
	Single	51
	Single edge	36
		558

Surface very good

(155)

1874-E First 9 hours of 1873-E baking  
schedule.

1875-E

First 8 hours of 1875E sailing schedule,

1876-E Make one quart Varnish -

100 gms Resin (Resin contains 15.1%)

6.8 " Phenol to bring up Phenol to 16.2 gms

1 " Para.

1 " Blandane.

7.8 " 6/4

135 " Alcohol

viscosity 5 SE

Varnish 1 coat 3 min 184/129

air dry

varnish 1 coat of 1871-E

Bake on special schedule 1873-E

119 printed No fire and fire blister.

60 OK.

59 discard Cracked edges 2

Pinkston label 41

Hard back 3

Hard back 1

Thin 1

Thick 2

Snaps 8

K spots 1

59

Note no poor prints  
bake 9 hours

Blanks made by unit 6,  
Blanks badly wedged

Made by unit 6,

of 24 blanks -

Blanks, average low 223 high 257 of 34  
Records, " " 191 " 240 " 49

1878-E

Made one drum 18 mixes per drum

32 pounds Dypont powder,

32 1/2 " Dynamite Wood,

12 " Flocin,

35 " Chalk,

50 " Alcohol

2 " Lamp-black -

Mould regular -

Finish special -

Print regular -

This experiment is not satisfactory since  
tailings could not be reground and mixed in  
with powder

797 printed shift edge 24

569 OK, both eyes 25

228 round \* Thin 135

71 1/2 OK \* thicker 46

Both thin and wedge were caused by powder  
being lighter and strike off left higher above ring.

Drop test 24 surface below average -

Blanks 1879-E  
Made on unit 4

	low	High	Dif.		low	High	low
1	247	260	13		229	232	3
2	238	253	15		203	229	24
3	226	249	23		216	224	8
4	225	254	29		203	233	28
5	229	263	34		228	235	7
6	241	260	19		207	212	5
7	216	242	26		214	224	15
8	237	252	15		214	233	17
9	239	261	22		234	236	2
10	239	257	18		216	231	15
11	248	269	21		220	227	7
12	220	246	26		200	215	15
13	245	264	19		220	239	19
14	241	243	3	average	207	222	15
15	238	263	25	low 238	226	237	11
16	231	247	16	high 257	205	219	14
17	246	268	22		215	220	5
18	241	257	16	dif 19	210	225	15
19	256	273	17		217	229	12
20	239	255	16		221	225	4
21	232	246	14		220	225	5
22	264	268	4		203	220	17
23	244	262	18		203	217	14
24	258	278	20		211	226	15
25	242	255	13		212	222	10
26	228	254	26		199	223	24
27	227	265	28		209	221	12

1879-E

Experiment for wedge blanks  
and records.

Increase pressure of contact.

Make 2 rounds blanks 225 lbs.

Condition -

Kanich Coats 1841 Elm Bate 1870 E

515% BK.

Injection 7 parallel cracks

3 radial cracks

3 Kanich pull out.

13

Compare opposite page with 1850-E  
may all be in different unit making  
the blanks. See also 1878



Tradeau mit 6

1880-E

	Blank			Records		
	Low	High	Dist	Low	High	Dist
1	230	252	22	199	235	36
2	247	264	27	208	225	17
3	232	264	32	205	229	24
4	232	260	28	214	241	27
5	232	255	23	205	224	19
6	248	283	35	207	225	18
7	232	245	13	219	238	19
8	215	257	39	205	237	32
9	209	265	56	198	219	21
10	240	250	10	211	239	28
11	236	281	45	223	230	7
12	230	247	17	213	225	12
13	231	264	33	215	234	19
14	239	250	11	229	239	10
15	220	253	33	207	231	24
16	210	219	9	discontinued		
17	238	266	28	213	238	25
18	236	289	53	207	231	24
19	234	243	9	206	240	14
20	244	261	17	217	231	14
21	246	253	7	218	228	10
22	223	247	24	193	231	38
23	224	270	46	195	234	39
24	216	243	27	196	202	6
25	236	264	28	211	240	29
26	234	259	25	208	221	23

1880-E

Experiment for bedde blanks and records.

Make two records starting with full pressure -  
Caliper,

1865E blanks for 2 cuts 184E 300mm diameter.

Make 184E schedule.

Print 225 lb contact pressure.

25% D.K.

Biscuits parallel etc. 7

Radial cracks 4

Vanish 10, on edge 7, at edge - due to vanishing.

18

Seems to make more endges

### More Surface

Sound very much rougher than regular.

These blanks flowed considerably more than the regular blanks.

On account of coarser grinding they probably require a larger percentage of chalk as was the case when the used coarser powder.

1881-E

Make 125 blanks with powder direct from grinder. Be careful not to get it contaminated with any regrind tailings. Also keep regular powder from mixing with it in hopper etc, also do not get streaks off from this mixed with regular powder.

Blanks will come flatter unless streaks off blades are raised.

Make thin press in which wider parallel strips have been used.

Varnish 2 coats 5 min varnish -

Bohr 1875-E schedule -

113 printed

3 boxes per lot

16 parallel ok

12 radial ok

11 wedge

*Bohr schedule* } 23 thick

1 rough spot

67 scrap

48K 407%

Test for surface 18 good  
 5 fair  
 1 Run out.  
 24 tested.

1892-E

1865-E Blanks

Bake 100 blanks for 30 minutes to dry them out thoroly (over 130°)

Varnish 1<sup>st</sup> coat while blanks are warm  
 air-dry for one hour put in cold oven  
~~with flat back~~ and bring up to 130°  
 in one hour. Then apply second coat  
 and start in cold oven bake on schedule  
 1875 E to 8 hour point.

1841-E Varnish: Dim. bicat.

Blanks show a little more gloss  
 than 1875-E same varnish.

94 printed 35 OK.

- 14 brass pull outs.
- 2 P.O. on label.
- 9 parallel cracks
- 16 radial cracks
- 16 cracked blanks.
- 1 low spot.
- 1 warp.

169 blanks -

first regular

3/6/18

~~189~~ 2 coats <sup>5 min. inc.</sup> 1891 hrs baked 9 1/2 hours.

141 records received.

129 O.K.

2 Paint and oil label

2 mould injury

2 dents

2 low spot

3 snags;

48 sides tested

19 fair surface

12 good surface

13 low surface

4 run out

91% O.K.

no cracks

Surface

Rough -  
Powder must be  
screened -

48 sides tested

19 fair

12 good

13 low

4 run out

1883-E

Like 1827 except as follows,

27 1/2 lbs Union Wood, } 55 lbs wood.

27 1/2 lbs Dupont Wood,

45 lbs chalk.

11 lbs I Rosin.

50 lbs Alcohol

2 lbs gas black.

Make up 100 blanks with this powder as  
it leaves the grindure.

~~Make up 100 blanks~~

Varnish 2 coats 1841 5 min. vis.

3/7/18

Prints regular -

349 printed,

5 vases pulled out.

3 pull out on label

1 radial crack,

4 moulding

14 white spots,

25 cracked blanks,

13 low spots,

7 traps,

79% 6/4,

48 sides tested -

35 fair

6 blind,

4 good.

3 run out.

tailings from 1865-E made  
this rough,

1854-E

1883 powder from grinder is  
mixt in reconciling with 1/3 tailings  
from 1865-E powder,  
would regular

Varnish 2 coats 5 min. visc 1841-E  
Bake 9 1/2 hours.

149 records received

1 veneer pull out

1 cracked edge

12 P.O. on label

1 radial crack

8 cracked blanks

2 cracked center

5 low spots

1 snap

1 silver spot

3/6/18

117

78% OK

48 sides tested

29 fair

7 run out

11 loud

1 good

tough -

powder must  
be screened

1885-E

55 pounds paper pulp, cut up to  
wood dust and then run thru

Schmidt Onil Mill,

45 lbs chalk -

11 lbs rosin

50 lbs alcohol

2 lbs lampblack -

Make up 100 pounds as it leaves  
the grinder - hold remainder -

1886-E

Batch 100 blanks like 1882-E  
except use varnish 5 min viscosity  
instead of 3 min as in 1882

1841-E Varnish

12 printed 1873-E blanks. 10 OK.  
 Surface land - 2 discarded for poor prints.

3/6/18  
 583 OK  
 84.9 %

686 printed  
 6 better pull out  
 17 p.o. on label  
 2 parallel cracks  
 18 radial cracks  
 8 wedges  
 10 thick  
 34 snaps  
 2 poor print  
 6 rough spots

Good.

1887-E

Printing schedule.

Contract - to line on thermometer 200°  
 hold on contract for 2 minutes,  
 Full pressure for 10 min.

try this on 9% low baked blanks 1873-E

also on 6 hour bake 1873-E curve.  
 trouble 5 varnish -

Kinder tried 2 min adapgood  
 and then 3 min. 100% OK. } no cracks  
 4 " 20% poor prints  
 5 " all poor prints

All printing changed to this schedule  
 March 5-1918 - 3 min low pressure  
 after thermometer reaches 200° then  
 9 minutes on high pressure.

At the same time I started Kinder on this schedule  
 to soften ~~flint~~ blank I had Clancy make up  
 a pair of embossed ring moulds E-1424  
 they were used to make 27 prints at night March 6  
 all were free from cracks March 7 all moulds  
 made were embossed. W.D.

Schedule could never be used with soft varnish.

C.W.D.



1888-E

Special Bating Schedule - Kinder

1899-E

Special Bating schedule - Kinder

1890-E Special Baking schedule - Kitchen.

1891-E Egypt - Christensen  
1/2 pint 5 min viscosity, 1841-E Danish -  
with 1/2 of one percent Aviline oil.  
Got this out - stopped it and told Christensen  
that we do not want to start anything new like  
this that would take a long time to prepare.  
W.D.

1892-E Varnish Exp,

100 grams Resin

phenol to bring free phenol up to 22%

1 g. Para -

1 g. Santarone,

7.8 ~~1~~ g.  $\frac{6}{4}$

alcohol dilute to 500 ml.

~~2.1 g. Phenol on total weight of solution.~~

~~6.4 g. Santarone~~

13.75 ~~8~~ g. stumps

Gas black -

1893-E

Vanille Exp.

100 g. resin

Phenol to bring free phenol to 22%

1 g. psora

10g. sandarac

7.8 g.  $\frac{6}{4}$

Alcohol to dilute to 5 min visc.

$3\frac{1}{2}$  g. Gas black

2 g. Shino.

1894-E

1114 Blanks recd.  
660 OK.

slight edge 90  
auto edge 45  
thin 42  
wedge 255  
pull bite 3

602 Records  
454 G.R.  
1. never pull out  
3 crushed edges  
31 pull into an label  
11 parallel cracks  
8 radial cracks  
20 wedge  
13 thick  
14 snags  
1 silver report  
16 rough report  
118 discard -

80% OK,

1894-E Like 1827 except as follows:  
2 1/2 lbs Union wood, } 55  
2 1/2 lbs Dupont wood, }  
45 lbs chalk  
11 lbs I Pinin  
50 lbs Alcohol  
2 lbs Gas black,

(Painting press  
bags)

Make one drum of Pinin solution -

Make 100 blanks just as it leaves grinder  
and mark 1894-E-A, Spindle rough-venish  
do not draw it up.

In screening the remainder mix with  
takings from 1866-E 2-3 as usual,

1895-E

Printing schedule.

Contact to line on thermometer 200°F.

hold on contact for 3 min.

Full pressure for 5 min.

This is a development from 1887-E and  
saves 4 min. on each schedule! - suggested by Rich

Started 10 Apr. March 9-18 - after wear  
test showed it to be O.K. Blanks are  
taken 9 1/2 hours - 1873-E schedule - run all day<sup>29</sup>

Pressure increased to 700 lb from 600  
on printing press. to take care of ring  
moulds and prevent low prints, 1896-E

---

Gives O.K. wear test, but we are afraid  
to use it as rammer may not be absolutely  
wired and may peel - stopped 6 PM.



1896-E-

Pressure on printing hydraulic press  
changed to 700 lbs March 9-10 AM.

Blank is soft and makes nearly  
a full print with only 40 lbs pressure  
for the first 3 minutes contact period  
after the 200° line is reached.  
stops low prints suggested by rollers.

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 26**  
**Notebook, N-18-03-11**

This notebook was used by William W. Dinwiddie during March-April 1918 for notes on efforts to improve the surface quality of Edison disc records. The entries pertain primarily to a sequence of experiments numbered from 1897E through 1975E. Most involve experimental lots of record blanks constructed by different methods, prepared with various varnish compounds and methods of varnishing, or printed according to different schedules of heat and pressure application. The notes generally take the form of instructions describing the experimental records wanted, accompanied by evaluations of the test records produced. One entry mentions work done during the "strike of blanks makers" on March 26-27. Several pages of additional notes by Archie D. Hoffman, consisting of caliper measurements for experimental record blanks, have been pasted into the book. The notes indicate that some of the caliper measurements were performed by an experimenter named Haviland and that Dinwiddie also received assistance from Peter C. Christensen and John McMullen. Among the unselected loose items inserted into the book are several cursory notes by R. Voorhis on celluloid records printed in May 1918, as well as notes by Dinwiddie, C. Hiles, and Charles G. Kircher. The front and back covers are labeled "26." The pages are unnumbered. Approximately 120 pages have been used.

March 11-18

1897-E Contact pressure on printing  
schedule on one press changed to  
40 pounds - temporary connection to cooling  
water line. (35 to 40 lbs.) Run one  
set of moulds to test sugar.

1865-E Blanks.

3-18-18

2 Coats 1898-E 5 min visc  
160 Blanks painted  
157 Blanks painted  
3 pull onto on label  
2 wedge  
14 low spots  
4 snags  
Painted 1887 schedule  
85% OK.  
(surface fair?)

1866-E Blanks

65 painted  
5 pull onto on label  
6 parallel cracks  
3 poor prints  
9 snags  
5 rough spots  
56.9% OK  
Surface very good 9  
good 2  
rough 1

1866-E. Blanks

62 painted  
6 pull onto  
16 poor prints  
64.5% OK.

1898-E Varnish 2 1/2%, run time 51 47 sec vis

100g phenol resin, 140 Type Blank

7.5 phendol to bring free phenol to 2 1/2%

1 g. para.

1 g. bandanae.

7.8 g. 6 1/4

Alcohol to dilute to 5 min visc after  
gas black & china have been added.

5 g. gas black

3.1 g. china.

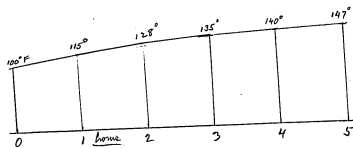
2<sup>nd</sup> lot 16.8% free phenol - 28 sec viscosity.  
run number 50

1899-E Exp. to reduce pull onto new  
label.

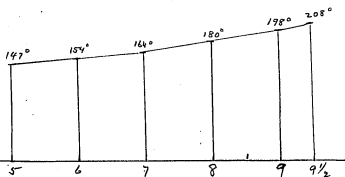
Leave center 3 inch circle in  
the blanks with only one coat of  
varnish, —

Make 24 blanks - Take on 1873-E  
schedule, —

1841-E varnish 5 min. use,



1900-E special oven schedule -



1865-E 106auha - 2 coats 1891-E Konisch 52mm bris

1179 printer

- 1 success pullout
- 2 success edges
- 31 pull out on label
- 11 parallel wash
- 8 radial wash
- 3 twinges
- 5 other
- 12 thick
- 20 marks
- 41 rough spots
- 149 total score,

87.3 % OK,  


---

 3/13/18

1866-5 Blanks Van 2 coats 5 min. dry, -  
40 Blanks printed. (Bale 1873)  
6 p.o. on label,  
1 parallel crack, 75% OK,  
3 wraps, sand came

Above were to have been printed on a single  
pair of new moulds to see if varnish had  
hard spots,

### 1901-E Varnish experiment

same as 1898-E except that the  
ground phenol resin is screened thru  
100 mesh screen to prevent large particles  
of "insoluble" resin from getting in,

1866-E Blawie - Var 29a76 - 5 min. vicinity

36 printed

11 p.d. on label

3 press prints

22 Q/L

b1, 1% O/R,

1902-E Same as 1901-E except that  
"shine" is left out entirely.



1903-E Special oven schedule bake  $9\frac{1}{2}$  hours, same  
up to 200°-

about same as 1973-E  
no difference shown.

1866-E 16 lines

var 2 cents - 5 min. minority, 1873 beke

38 blanks printed

3 pull out on label

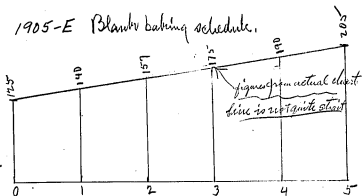
35 O.K. 92, 1% O.K., 10 there printed

1904-E Same as 1895-E except  
use 2 g. sandarac to stop  
bubbles

60 blanks damaged } 80% OK.  
 50 printed  
 48 OK  
 1/2 parallel cracks } 90.5% OK.  
 1 wedge  
 2 anaglyphs

See 1908-E

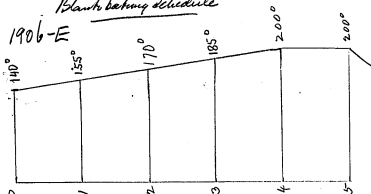
1905-E Blanks baking schedule.



60 blanks 1841-E 5 minutes, two coats - only two large bubbles on top each.

Blank baking schedule

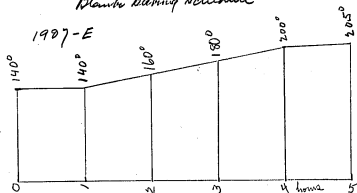
1906-E



60 blanks 1841-E - 5mm vice, 2 coats.  
 N.C., very large bubbles - max in top inch,  
 Not printed - few without  
 large bubbles -

Blanks let to good after baking.  
 60 Blanks bannished -  
 60 " printed  
 54 OK,  
 1 recess dullant  
 3 radial cracks  
 1 poor print.  
 1 snap,  
 90% OK,

# Blanks baking schedule



60 blanks - 1841-E - 5 min viscosity 2 coats  
 no bubbles, (see 1912 and 1913)

Blanks look a little rough,

60 Blanks varnished 100%

60 Blanks painted }

52 OK,

3 ridge

3 thin

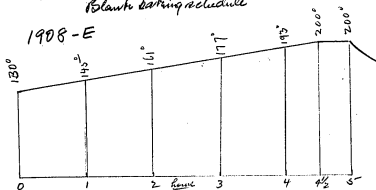
2 scraps

} 86.6% OK,

100% as far as varnish is concerned

G-0011,  
Blank baking schedule

1908-E



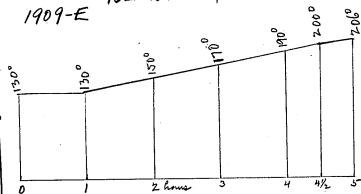
60 blanks 1841-E varnish 5 min viscosity - 2 cents,  
no bubbles

60 blanks varnished  
 52 printed  
 48 OK,  
 1 wedge.  
 1 thin.  
 2 cups.

} 92.3% OK.

} 80% OK.

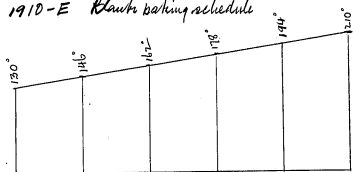
Blank baking schedule -



60 blanks 1841-E varnish - 5 min microtomy  
- 2 coats.

A few bubbles in top rack only,  
blanks full of small bubbles and  
rough.

1910-E Route baking schedule





1866-E Blanks

~~27 printed~~  
60 blanks finished

31 Blister

1 chip edge

1 scratch

27 OK printed

2 pull onto on label

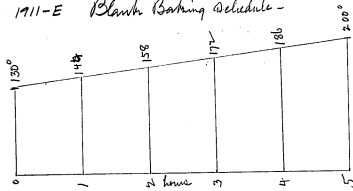
1 radial scratch

1 press print

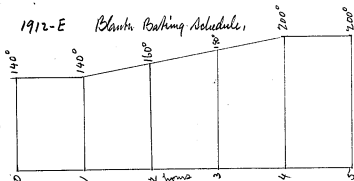
45% on baking

85% on printing

1911-E Blank Baking Schedule -



60 bladders 1866-E barnished <sup>200000</sup> 1500-E 5000-E  
 34 bladders. Very large bubbles  
 1 chapt. edge, 40% embossing  
 1 cracker  
 24 S.M. printed, Surface smooth  
 2 bridge- } due entirely to bladders  
 2 thistle }  
 only 40% on bladders but  
 100% on printing.



See 1907-E - nearly the same,  
 but a little softer than 1907

60-1866-E Blanks furnished 2 coats

11 drier

1 shift center surface rough

1 crack -

47 printed

1 crinkled edge

2 pull out

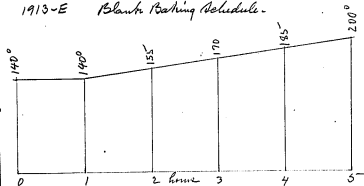
1 stain

3 smudges

2 rough spots

50% on printing,

1913-E Blank Baking Schedule.



See 1907 and 1912 - a little  
softer than either,

39 printed,  
13 pull out on label  
3 parallel crack-  
1 wedge  
4 poor prints

46  $\frac{1}{2}$  of OK,  
Surface OK,

1914-E Vanich Exp

Same as 1898-E except use 15 para.  
Use Run No 50 phenol resin,  
Make one quart.

37 printed,

1 crushed edge

15 pull out on label

2 radial each

1 per print

3 wraps,

40% O.T.,

Surface O.K.,

1915-E Varnish Experiment

Same as 1914 except use phenol resin  
run number 52

# 1916-E 28 Rd Blanks 3/16/18			
Low	Hghts	Diff	Low - High
1 256 -	268	12	227 - 235 2A 8
2 252 -	289	37	219 - 242 2A 33
3 250 -	262	12	Bltn ALK
4 240 -	266	26	Bltn ALK
5 256 -	273	17	224 - 237 18
6 249 -	272	23	221 - 244 19
7 234 -	304	70	Bltn ALK
8 253 -	270	17	Bltn ALK
9 246 -	264	18	Bltn ALK
10 221 -	267	46	Bltn ALK
11 251 -	262	11	Bltn ALK
12 213 -	260	47	187 - 220 18 33
13 242 -	285	43	225 - 241 16
14 242 -	276	34	Bltn ALK
15 245 -	265	20	215 - 236 21
16 231 -	276	45	Bltn ALK
17 253 -	269	16	Bltn ALK
18 251 -	285	34	210 - 241 31
19 243 -	245	12	Bltn ALK
20 250 -	273	23	213 - 236 13
21 220 -	282	62	Bltn ALK
22 230 -	260	30	Bltn ALK
23 234 -	285	51	Bltn ALK
24 255 -	298	40	230 - 239 1A 9
25 246 -	261	15	205 - 235 5
26 250 -	279	29	213 - 240 27
27 224 -	294	70	Bltn ALK
28 234 -	268	34	204 - 238 1A 31

1916-E

Make two rounds blanks  
regular except hold pressure  
in small for a few seconds  
while counting fine +

Calliper for wedge -

Pressure is 640 lbs.

Blanks seemed to strike too much  
on varnishing not enough were printed  
to make a bad showing for wedge -

See 1919-E

16 blanks wedge over 25  
4 records of the few printed

1917-E		26 Special Blanks		3/16/18	
Low	High	Diff	Low	High	Diff
1 274	- 283	9	229	- 242 P.C.	13
2 236	- 252	16	216	- 229	13
3 245	- 274	20	227	- 248	21
4 228	- 252	24	White	AK	
5 241	- 278	32	White	AK	
6 246	- 271	15	White	AK	
7 244	- 270	15	White	AK	
8 248	- 287	19	226	- 240	14
9 246	- 260	14	229	- 238	9
10 234	- 267	33	White	AK	
11 242	- 257	5	White	AK	
12 244	- 287	28	217	- 242	25
13 242	- 267	25	White	AK	
14 251	- 266	15	223	- 235	12
15 238	- 257	19	White	AK	
16 247	- 277	30	White	AK	
17 239	- 252	13	210	- 221	11
18 247	- 273	26	223	- 240 P.A.	17
19 247	- 283	36	White	AK	
20 244	- 269	24	White	AK	
21 248	- 279	30	White	AK	
22 244	- 270	16	White	AK	
23 248	- 261	13	223	- 230	7
24 234	- 244	21	White	AK	
25 234	- 244	10	White	AK	
26 240	- 270	30	209	- 233	24

1917-E

Make two rounds regular 1866-E  
Blanks, hold pressure like 1916-E  
Increase pressure to about 725 lb.

See 1919-E

8 blanks wedge over 25"  
1 record of these printed.

# 1918-E 26 Official Blanks				3/4/18
	Low	High	Diff	diff
1	242 -	272	30	214 - 224 10
2	244 -	263	19	220 - 228 8
3	270 -	276	16	222 - 227 5
4	239 -	249	10	207 - 228 <sup>244</sup> 21
5	245 -	266	23	233 - 251 <sup>244</sup> 18
6	250 -	265	15	220 - 227 <sup>244</sup> 7
7	246 -	251	5	216 - 234 18
8	260 -	266	6	220 - 240 20
9	247 -	261	14	216 - 226 10
10	247 -	260	13	227 - 230 3
11	237 -	243	6	228 - 242 14
12	227 -	252	25	207 - 219 12
13	253 -	269	16	234 - 242 8
14	247 -	274	17	209 - 223 14
15	248 -	267	19	224 - 229 <sup>244</sup> 15
16	242 -	249	7	225 - 233 8
17	239 -	270	31	229 - 232 4
18	255 -	262	7	226 - 232 6
19	250 -	260	10	223 - 235 12
20	248 -	256	8	217 - 225 8
21	241 -	259	18	207 - 235 <sup>244</sup> 28
22	248 -	269	21	214 - 229 15
23	226 -	280	54	214 - 229 15
24	246 -	264	18	220 - 221 1
25	247 -	270	23	217 - 229 12
26	238 -	263	25	224 - 235 <sup>244</sup> 11

1918-E: Make two rounds regular  
blanks like 1919-E except  
pressure about 800 lbs.  
Calipers for wedge

See 1919-E

3 blanks wedge saw 25-  
1 record " " 25-



#	1919-E	25	Special	Blanks	3/4/5
	Exp.	Height	Diff.	Redoubt	
1	244	-	279	34	232 - 241 <sup>Redoubt</sup>
2	242	-	270	8	234 - 240
3	245	-	258	10	222 - 229
4	244	-	261	16	222 - 230 <sup>Redoubt</sup>
5	245	-	262	12	227 - 231 <sup>Redoubt</sup>
6	247	-	266	19	223 - 242
7	244	-	263	18	222 - 237
8	260	-	272	12	233 - 240
9	253	-	266	13	224 - 227
10	247	-	247	8	223 - 232 <sup>Redoubt</sup>
11	243	-	247	14	218 - 228 <sup>Redoubt</sup>
12	262	-	276	14	232 - 238
13	261	-	268	4	231 - 233 <sup>Redoubt</sup>
14	262	-	263	1	224 - 232 <sup>Redoubt</sup>
15	239	-	246	17	213 - 224 <sup>Redoubt</sup>
16	241	-	267	16	221 - 224
17	244	-	269	15	233 - 239
18	241	-	261	20	219 - 225
19	237	-	247	20	214 - 223
20	262	-	273	11	236 - 250
21	239	-	246	17	213 - 228
22	244	-	268	23	219 - 234
23	243	-	269	26	216 - 240
24	254	-	272	18	234 - 236 <sup>Redoubt</sup>
25	247	-	249	11	222 - 232 <sup>Redoubt</sup>
26	261	-	281	20	236 - 245

1919-E Make two rounds regular  
blanks like 1917-E except  
have pressure about 875 lbs  
allipn for eudgn

Pressure changed to 875 lbs on  
regular Blanks. March 18-18 at 5:20  
P.M.

2 blanks eudgn over 25-  
no records over 25-  
and all were printed.

# #1920-E 26 special blanks 3/16/18

	Low	High	Diff		Diff
1	269	271	2	217 - 231	14
2	256	268	12	224 - 235	11
3	255	252	27	222 - 236	14
4	258	266	28	230 - 235	5
5	252	261	9	213 - 237	24
6	229	260	31	213 - 227	14
7	248	271	18	232 - 235	3
8	248	271	18	229 - 235	6
9	238	271	33	243 - 248	5
10	247	254	8	230 - 236	6
11	249	275	46	223 - 241	18
12	240	271	31	216 - 236	20
13	245	262	7	Orate alk	
14	245	276	31	220 - 229	9
15	261	284	23	237 - 246	9
16	253	266	13	210 - 243	33
17	266	279	13	237 - 245	8
18	239	252	13	225 - 232	7
19	266	298	27	227 - 246	19
20	251	274	23	229 - 239	10
21	230	258	23	227 - 243	16
22	257	261	5	232 - 248	16
23	251	253	2	223 - 242	19
24	250	265	15	227 - 233	6
25	250	267	17	217 - 221	4
26	253	289	36	248 - 252	4

Caliper measures by Hasland

1920-E orate two rounds regular  
blanks like 1917-E except  
have pressure 945 lbs. (about)  
Caliper for wedge -

9 blanks wedge over 25-  
one record wedge over 25-

See 1919

#1921-E 26 Special Blanks 3/6/57					26/8
Low	High	diff	crack label		
1	237	- 264	37	227-237	10
2	242	- 241	9	227-247	20
3	244	- 272	28	219-231	12
4	242	- 260	8	229-236	7
5	240	- 249	9	220-230	10
6	240	- 283	43	222-229	7
7	247	- 260	9	219-230	16
8	230	- 270	35	224-238	13
9	241	- 262	21	231-243	12
10	242	- 278	16	217-228	11
11	263	- 264	1	217-226	9
12	242	- 249	7	231-234	3
13	244	- 252	8	236-244	8
14	244	- 279	15	227-232	5
15	251	- 274	23	218-229	11
16	239	- 275	36	215-238	23
17	232	- 241	9	230-234	4
18	244	- 272	18	222-234	12
19	248	- 263	15	221-239	18
20	243	- 267	24	235-238	3
21	247	- 277	26	230-244	15
22	235	- 247	12	228-230	2
23	250	- 256	6	223-236	13
24	253	- 279	26	233-249	16
25	237	- 250	13	212-223	11
26	243	- 267	24	222-234	12
Sum. 181					118

Compare with 1922-E  
 1921-E Blanks made on coil presses  
 Presses No 11 and No 12

March 16-18

#1922-E 26 Special Blanks 3/6/7

	Low	High	diff		
1	247	- 288	36	216 - 246	30
2	244	- 289	14	223 - 230	7
3	246	- 286	30	220 - 230	10
4	241	- 272	31	220 - 233	13
5	243	- 281	38	222 - 230	8
6	249	- 269	20	219 - 242 <i>disc</i>	22
7	240	- 265	25	<i>Blute Blk</i>	
8	241	- 275	34	229 - 229	0
9	248	- 262	14	224 - 240	26
10	240	- 254	14	219 - 232	13
11	246	- 262	16	214 - 231	17
12	235	- 249	14	212 - 234	22
13	230	- 268	38	223 - 234	11
14	242	- 261	19	213 - 232	19
15	244	- 279	35	221 - 236 <i>disc</i>	15
16	241	- 269	28	220 - 236	16
17	244	- 258	11	222 - 231	9
18	254	- 274	20	210 - 221 <i>disc</i>	6
19	252	- 269	17	224 - 230 <i>disc</i>	16
20	247	- 279	22	206 - 233 <i>disc</i>	27
21	241	- 266	15	224 - 232 <i>disc</i>	7
22	242	- 270	28	219 - 230	11
23	245	- 280	35	222 - 247	25
24	247	- 271	14	227 - 236	9
25	230	- 263	33	219 - 239	20
26	228	- 263	35	224 - 247 <i>disc</i>	23
	84	24			143

Compare with 1921-E  
 1922-E Blanks made on swing joint press  
 Press nos 3 & 4

No.	Thick Sector		Thin Sector		Thick Thin	
	Measure	Weight	Measure	Weight	Measure	% WT.
1	240	33.7	234	304	24	10.9
2	269	32.6	251	33.2	7	-1.9
3	274	32.2	229	31.0	20	3.5
4	267	33.4	257	31.8	4	5
5	263	32.2	226	31.9	164	-5.6
6	297	35.4	206	27.3	44	30
7	277	31.8	223	28.9	24	10
8	262	31.8	231	30.6	13	4
9	279	34.5	233	31.6	20	9
10	287	34.3	241	31.3	19	9.6

This indicates that most of the original trouble is in loading and not eliminated by the packing press. The negative result is shown in two cases - indicating trouble in large press.

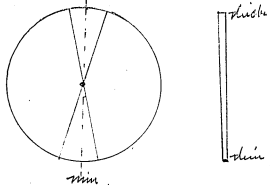
#### — Theory ???

Loading is not uniform. Small press does not come up parallel. Must be guided up and forced parallel by a longer ram. ?

Slight inequality of loading sets the angle of the press when firm contact is first made. When blank is compressed this angle means a greater percentage of whole thickness than original thickness, and increases discrepancy. This action is further increased in the large press.

#### Important crucial experiment.

1923-E Experiment on wedge blanks. Take 10 blanks calliper thick and thin sides, mark max. and min. point. Cut out exactly equal sectors on each side and weigh each sector.



this will show if trouble is in loading or in pressing.

Sectors cut out by marking with the sector and saw out by band saw

→ because to straighten up, the surface would have to slide.

{ Press sent to Laboratory March 18  
asked Ball to take charge of remodeling it March 20.  
Press finished April 6-18

3-20-18

80 - 1918 - E Blanks furnished

2 coats 5 min. Visc 1841-E formula

15 blanks discarded

65 printed.

19 pull out on label } due to other causes

4 parallel cracks } probably -

1 wedge

11 poor print

7 smudges.

23 OK - only 35.3% OK.

Christensen made temperature test 150° to  
-20° Fahr. All six rounds OK.

1924-E - same as 1898-E except  
leave out sandarac entirely.

3/15/18

1925-E

24 blanks varnished all over  
first coat. second coat the  
label not varnished,

24 printed,  
1 pull out on label.

same as above except that center is  
varnished on 2<sup>d</sup> coat instead of first.

24 printed,  
1 white spot  
1 cracked blank -

This is not so good as first way  
because truck. is spoiled by the dry  
center of blank for 2<sup>d</sup> coat varnish.

1926-E

Sandarac -

beginning Monday March 18 all Sandarac mud in the varnish is dissolved, decanted and filtered separately to get rid of sand, beginning Tuesday Mar 19 all Paron is dissolved first to get out small traces of iron and dirt. —

Sandarac 5559 grammes contained  
over 50 grammes of white sand,  
or 1% —

Spatula test developed grit in varnish. Christman extracted all resin from small sample - leaving residue of silica with the glass block, Hoffman suggested the sandarac and Christman took a sample and found the sand, Christman also examined the Paron and found particles of iron.



1927-E Take an O.K. Cooper mould-  
polish margin and feed lined on  
polishing machine, with brush and  
rouge. Polish until smooth, any  
much more than it would be  
safe to polish the muzzle.

Suggested by M.C. Muller March 19-18  
This makes the start more quiet.

40 blanks varnished  
6 discarded for blisters (bubbles)  
34 printed,

85 <sup>87</sup>/<sub>10</sub> { 1 pull out on label  
019. { 2 parallel scratches,  
          { 1 white spot.  
          { 1 snap.

1928-E Special Variance to see if  
stickyness due to low viscosity of  
plumol resin can be reduced  
by adding more 6/4

100 grammes resin } Run no 52  
7.7 phenol } First phenol 14.3  
1 para } Viscosity 43  
1 sand  
7.9 6/4  
140 Alcohol.  
5 Gas black  
3 slino.

- 2 coats 5 min -  
 40 blanks varnished  
 2 blisters  
 1 chip + edge -  
 37 printed  
 1 vinner pull out  
 4 pull out on label  
 2 parallel cracks  
 2 cracked blanks  
 2 snaps  
 26 of 72%

---

1929-E special varnish

Same as 1928-E  
 except use 8% of 6/4

no Bubbles in baking

1930-E Baking schedule etc.

Varnish first coat air dry 30 min

Varnish 2<sup>nd</sup> coat air dry 30 min

Put in oven at 100° F

after one hour 115°

after two hours 130°

then continue on 1908 schedule,

- to get rid of bubbles -

Principle is not to heat the varnish  
in baking process so that it becomes fluid  
at any time.

See 1933 also.

1931-E Printing press schedule  
To prevent cracking slabs -  
Contact - until thermometer  
reaches 200° marks then 3 minutes  
more, Then take two minutes  
more to come up to full pressure  
very slowly to prevent breaking  
bricks, then hold full pressure  
on steam for 7 minutes more,  
made - Low prints -

Held only two minutes after 200° marks is  
reached then take 2 minutes to come up,  
This works better,

1932-E

Principle suggested in 1930-E  
to present <sup>existing</sup> might reduce or eliminate  
most of the run outs.

Examine blanches carefully to see  
if top edge in setting is different  
from bottom edge, no difference

1933-E      Batching schedule same  
as 1908 except that temperature  
is brought up to  $130^{\circ}$  in only one  
hour.

Received 111

OK, 104

Disc 7

chipt edge ~

high 3

wedge

93.6% OK, on board

7

bar 2 inch & min size 1841

93 printed.

1 crushed edge

5 per OK

2 rad ok

5 wedge

\* 43 thick -

1 poor print

1934-E Same as 1866-E except  
use 400 pounds pressure on  
blank press instead of 450 lbs (1867-E)



Decd 111  
 OK, 93  
 discd 18 — drift edge 3  
                     cashed 11  
                     hedge 4  
 83.7% OK 18

90 printed —  
 1 reverse pullout  
 16 parallel ch  
 2 nad ch  
 1 white spot  
 2 thick

} 73% OK.

1935-E Same as 1866-E except incl  
 500 lbs pressure on slants press  
 Instead of 450 lbs (1827-E)

1936-E See 1824-E, 1827-E, and 1918-E

30 lbs Union wood,

30 lbs Dupont or Homfriche

2 lbs Gas black,

50 lbs alcohol,

12 lbs resin less .06 of a pound

for every 1 of 1% of Resin in the  
wood flows about 3%. This is  
to make the resin content of the powder  
constant.

Union wood	2.7% Resin	.06
Example Dupont wood	4.1	.24
average	5.4	res 11.76 lbs

1937-E (A.H.I. schedule) Hoffman - to make blanks after,

3 - ~~main constant~~ 125 lbs.

2 main *Hoplandia procera* - 450 lbs. (1917)  
otherwise regular - (1915, 1919-E)

Wid to make blanks a little lighter -

51 printed

1 curved edge

14 pencil and out label

15 parallel ch

1 wrap -

61 7/8 8K

117 printed -

840 8K,

1 running o.

1 curved edge

109 P.C. on label

\* 164 parallel each

9 radial each

2 end edge

4 thick

21 poor print

1 stain

15 wrap,

3 rough opt

71 2 9/8 8K,

1938-E Make 100 blanks 1261 schedule  
no contact pressure after ram is  
full - High pressure 450 lbs on for 5 min.

104 blanks made -

83 blanked

1 discard

82 printed

1 pull out on label

2 parallel scratches

4 poor prints

94% OK on printing

4/6/18

89% printed

11 blank p.o.

51 R.O. on label

82 parallel Ch

10 radial Ch

3 wedges

1 broken across

15 fragments

11 thick

3 stain

14 scrap

1 Deloid spot

13 Rough spot

75.8% OK

4/6/18

52% printed

12 blank pull out

3 circular scrap

30 small spots on disc

12 parallel scratches

13 circular scratches

1 broken

66 thick

79 poor prints

3 dents

2 stain

3 low spots

24 scrap

8 clean spots

Printed  
good schedule  
See 1938-E

3856 painted 4/9/5

18 brown full ends.  
10 cratched edges.  
81 pull out on label.  
16% parallel cracks.  
80 radial cracks.  
21 ledges  
9 stain  
97 poor joints  
382 thick  
6 cratched center  
6 low spots  
48 swags  
1 bubble spot  
105 rough spots  
1006  
73 9% OK.

1939-E Dry enough wood flow 1/4 make  
up several drums 1936-E

bugent had 61 7/10 moisture -  
bricks 8.2 "

(this drying done during strike of  
blaster making) — 7.2 inch 26.27

3/30/18

208 painted.  
154 OK.

1 brown pull-out  
4 label " "  
8 parallel ck  
1 radial ck  
1 scratch  
7 poor joints  
14 thick  
1 low spots  
17 swags -  
54 swag

77% OK.

4/1/15

1876 painted

3 brown pull-outs  
16 cratched edges  
45 label pull-outs  
59 parallel ck  
20 radial ck  
17 ledges  
30 poor joints  
2 scratches  
2 stain  
184 thick  
72 swags  
2 rough spots  
43 76% OK

1940-E Repeat 1894-E using wood  
glow dried 1939-E.

Packing pressure will be 500 lbs -  
evenly in with technique of 1939-E or

1861 techniques were worked in with 1894-E  
Should regular -

1707 Printed

8 brown pull out

5 crinkled edges

43 pull outs on label

29 parallel cracks -

10 radial cracks

2 wedge

\* 201 Thick

78% OK, with thick.

20 poor print.

90% without the thick

1 thin

blanks being thick always

3 stain

reduces cracks -

1 wood in blank

2 loss spots

30 snags

1 silver spot

18 rough spots

374 scrap.

1941-E. All weights on accumulator for packing  
press - 1000 lbs pressure  
 $\frac{1}{8}$  high mould ring -  
ring strike off.  
100 blanks 1936 powder

1942-E All weights on accumulator for  
pasting series, -1000 lbs pressure  
 $\frac{1}{16}$ " thick disc inside, moulds to make  
the equivalent of  $\frac{1}{16}$ " mould ring,  
ring strike off  
100 blanks 1936 powder.

71 blanks printed.  
" p.p. on label.  
3 parallel cracks.  
1 thin.  
2 thick.  
2 per print.  
2 arrays.



1943-E Same as 1942 except more regular  
ring - ring stripe off - all blanks  
come very thick

4/6/5

462 printed & scheduled.

- 1 brown pull out
  - 7 crinkled edges
  - 12 pull out & labeled
  - 11 parallel cracks
  - 1 parallel crack
  - 4 edges
  - x 23 thick
  - x 13 poor prints
  - x 3 low spots
  - 11 snags
  - x 15 rough spots.
- 71.1% 8 1/2%.

1944-E. Same as 1940-E except reduce pressure  
on packing press from 800 lbs to 750 lbs to reduce  
percentage of thick blanks.

4/6/8

503 printed <sup>See 1953-5</sup>  
2-5-5 schedule

3 Denver post note.  
11 pull out on label.  
18 parallel cracks.  
3 radial cracks  
1 stain

\* 48 thick  
9 poor prints  
11 cracks  
1 rough spot  
79.5 % OK.

1945-E same as 1944 except pins on 1261 schedule  
like 1938-E

1946-E Amx as 1940-E except inc ~~22~~  
1936-E parake-male with wood flour  
just as it comes.  
Get out in use of this, please,  
—ECL 1948—

9/6/58 SA 1953  
475 printed 2-2-2 schedule.

3 boxes pulled out.

1 scratched edge.  
20 pull out on label.  
24 parallel cracks.  
5 radial cracks.  
5 bulges.  
6 thick.  
8 poor prints.  
2 bulges.  
15 rough spots.  
79.5% OK.

1947-E Same as 1946-E except press on  
12 of schedule like 1938-E  
750 lb pressure in packing press.

4/6/10

472 printed Dec 1953  
228 schedule

7 boxes pulled out  
24 pull but no label  
10 parallel cracks  
11 parallel cracks  
2 down spots  
6 swags  
17 rough spots

82.4% OK.

*Introp test*

1	-	8
2	-	4
3	-	16
4	-	16
5	-	3
6	-	2
		<hr/>
		49

1948-E Same as 1946-E except presence of 750 lbs  
in packing process like 1944-E.

Same as 1949-E  
Graft viscosity  $3^{25} 30^{25}$ .

40 Printed. on 1952-E Blank.

1 Pull out on label } 77.5% OH.  
5 parallel crack }  
2 poor print }  
1 snap.

1949-E (Hazard resin).

39 printed

2 pull out on label  
4 parallel cracks  
19 poor prints  
4 thick  
25.5% OH.  
Fumble with stem.

1949-E Varnish - Clear varnish with only enough  
100 g. Phenol resin. gas-lacks to color it.

phenol to make free phenol 22%.

1 g. para.

1 g. sandarac.

7.08 6/4

(140)? alcohol -

1.5 Gas back.

dilute to 5 min viscosity.

4/4/58  
33 printed

1 better pull out

1 parallel etc.

10 poor prints -

Shows layer of varnish etc -

Prints all look dull like 1450 and 1451

same as 1950-E

except 3 = 28<sup>SS</sup> viscosity  
4-1 printed 1952 3 Blauko.  
4 parallel ch }  
1 thick } 82.9% OK.  
2 snags }

1950-E (7 special Resin)

38 printed  
2 pull out on label  
4 parallel cracks  
6 poor prints  
2 thick.  
65.1% OK.

1950-E varnish,

100 g. Phenol resin  
phenol to bring free phenol to 22%

1 g. para  
1 g. Baudarac  
7.8 g. 6/4  
(100 g) 10. Alcohol  
1.5 g gas black  
5. g. Shino,  
dilute to 5 min viscosity,

37 printed

1 label pull out } 4/4/18  
2 parallel ch } 25.6% on printing  
2 less spots } shows good layer of  
3 poor prints } varnish on top - all  
1 snag } prints look dull -



same as 1951-E. 4/4/5  
 except 3<sup>rd</sup> 32 sec. necessary.  
 40 Printed 1952-E Blanks  
 4 poor prints. 90% OK.

4/4/5  
 1951-E-A against Rain -  
 5 min. necessary.  
 34 printed.  
 1 rounded edge  
 1 pulled out  
 1 parallel etc.  
 24 poor prints,  
 1 thick  
 1 snap.

Stain was variable  
 and gave a lot of trouble  
 about the time that  
 this was printed.

1951-E Barnicle -

Same as 1949-E except leave  
 out the Barnacles.

Make one quart -

38 printed 4/4/5  
 2 runner pull out  
 1 parallel etc.  
 2 thick  
 9 poor prints  
 1 snap.

60.5% OK

Seemed to soak into the blanks in  
 printing showed very thin layer -  
 all prints look dull like 1949 & 1950.

1952-E-1261-E 1841-E too cost 5 mil. disc.

100 prints

76 OK. 76%

10 pull out on label

4 parallel et

4 thick

5 poor prints.

1 snap.

1952-E-1962-E disc 4<sup>th</sup> 45% OK, see 1962-E

1952-E Same as 1936-E except pressure  
on packing Jones reduced to 750 lbs  
from 800 lbs to stop blanks coming  
too thick —

(Schedule)  
2-2-8

(Schedule)  
1-2-9

A side

B side

554

418

385  $\frac{1}{2}$   $\frac{1}{2}$

298  $\frac{7}{10}$   $\frac{1}{10}$

169

120

1

1

7

35

13

73

23

1

11

4

3

8

33

2

3

29

12

9

1

19

Records printed

ET,

scraper

benzen pull out

crushed edges

Pull out on label

Parallel cracks

Radial cracks

wedge

Thick -

Poor prints

low aspect

anode

silver spot

rough spots -

1953-E Experiment to reduce <sup>low</sup> pressure printing schedule -

see 1931-E

① run one end of printing room on schedule holding low pressure one minute after 200° mark is reached then take two minutes to bring up the high pressure, "1-2-9 schedule"

② run other end holding low pressure for 2 minutes after 200° mark is reached and then take 2 minutes more to bring up the full pressure - "2-2-8 schedule"

Both have steam on for 12 min. after 200° mark is reached.

1954-E

Make one quart of 1949-E varnish using Phenol resin that has been ground as fine as possible. This is to obtain the same effect as 1901-E. but make it 200 mesh fineness if possible.

Lot A is made from dust brought on the linen filter on the mill over receiver box, vicinity 935

Lot B is made from resin passed thru

(80-mesh?) screen in shop lately by Christian

Lot C - vicinity 325

Lot A.

36 prints 1934-1952-E black

7 Parallel ck.

17 Poor prints. 30.5% OK

1 thick, in printing.

11 OK. prints

Lot B 1 poor print

36 prints 1934-1952-E black

4 parallel ck.

22 poor prints.

1 scrap

9 OK. prints. 25% OK in printing.

1955-E 5 min. Wisc. & Co. on 1952 Blacks.

36 printed 2-2-8 schedule -

29 OK. 80±%

7 poor prints.

~~10 poor prints.~~

# 1955-E Varnish Experiment.

Take one quart of 1841-E Varnish before any gas black is put in just as it comes from the filter press - then add a very small quantity of the regular 1841-E just as it comes from the paint mill - with paint mill adjusted very tight for very slow feed - 1/100" just enough to make the varnish black and note how much is used. (63 grams used)

4/9/58

Varnish, 6-35"

Very glossy blacks. - 1954-1955-E blacks.

40 blacks varnished

36 printed. } 2-2-8 schedule.  
10 parallel. } 52.7% OK on print.  
10 poor prints. } 19 OK. 10%  
1 crap.

4/10/58

1952-E Blacks

3 blacks	1 OK	2 poor prints	2-2-4 schedule.
3 "		3 poor prints	2-2-8 schedule 140 lbs. paint
3 "		3 " "	5-2-5 schedule
3 "	1 OK	2 " "	2-2-8 schedule reg. coll. test
3 "		2 " "	3-9 "
3 "	1 OK	2 " "	12 min. old reg. schedule.
3 "		3 " "	{ 2 min. heat at 600° test
			{ 3 min. " 200°
			{ 5 min. " 150°
6 "	3 OK	10 " "	2-2-8 schedule

2-2-8 schedule test that the very shiny varnish seems to trap air and make fine and poor prints of circular character.

CHT

1956-E varnish. Take one closed mixer  
of 1841-E varnish and put in with theoline  
about one pint cup full of gas black. Run  
for a full hour with theoline and then  
put through the filter press. If it  
is black send it up stairs as it  
is. Take viscosity, but do not alter it  
unless it should be above 5 mm.

When this comes from the filter it  
left practically all of the impurities in  
little balls. The dark black will have  
to be put thru paint mill to make it  
made like 1955-E

4.56 viscosity  
 12 printed 1+10 solidale-1 OK 2 parallel ok 9 poor prints  
 6 " 2-2-8 4 OK 1 label ok 1 poor print.  
 2d lot 5 min viscosity  
 12 " 2-2-8 12 poor prints.  
 12 " 2-2-8 12 " "  
 12 " 2-2-8 12 " "  
 54 printed only - 5 OK. } Bottom

40 banded 5 min viscosity  
 36 printed 2-2-8 solidale-  
 17 OK 47.2%  
 1 full set on label  
 2 parallel ok.  
 2 radial ok.  
 14 poor prints.

1757 - E one quart of 1841-E varnish just  
 as it leaves filter press before adding  
 lump black, viscosity 4.56  
 very glossy blank etc -

188-E

Submaste printing delicate - Contact pressure both  
Steam on - Thermometer at  $240^{\circ}$  - set clock  
after 3 min. - turn one minute more to bring up  
high pressure hydraulic to 120 lbs.

Hold high pressure hydraulic with steam for  
6 minutes more than set.

this changed to 5 min.



1859 E Blank inspection.

4-9-10-85%OK 442 received 392 OK 12 dupl edge 10' 20 10 18 70  
 4-10-15-70%OK 700 " 550 OK 40 " " (40) 30 10 20 150

1859 E-1261-E

4-9-15-85%OK 234 " 205 16 5 3 3 7 34

1959-E/4/1/18

370 printed.

281 OK.

89 discol.

2 pieces pull out.

25 pull out on label.

11 parallel track.

10 radial track.

38 thick.

6 poor print.

4 wraps

75.9% OK.

1959-1261-E 4/1/18

197 printed

162 OK.

25 discol.

9 pull out on label

5 parallel track

2 radial track

2 thick

7 poor print

86.6% OK.

Inspected

1959-E

1-75

2-20

3-13

4-3

5-1

6-3

57

1959-E-1261-E

2-20

3-13

4-3

5-1

6-3

59

4/12/18

518 printed.

433 OK.

85 wrap

1 piece pull out

2 crinkled edge

24 p.s. on label

26 parallel track

23 track OK.

7 poor print

1 thick -

1 wrap.

97.3% OK.

1959-E 134444

Same as 1824-E except as follows:

Pressure on large press 450 lb like 1827-E

Backing press pressure 750 lb

Mixture 25% lb Union wood

24% lb Dupont wood

40 lb chalk

11 lb I Room some for previous

in the world like 1936-E

50 lb Alcohol

2 lb gas blower

In screening 100% dirt mix in repress

loadings from 1959-E.

Vp label 200 slabs on 1231 schedule - this same

Base slabs only 1800 lb on in subm of

amount

599 runs edged 96.2% OK on edging.

1960-E Blank Inspection.  
 Washed OK. Chpt. Edg. opt. water Backed wedge Rollout Total  
 4-9-18-86%OK 449 387 32 5 15 10 62  
 4-10-18-75%OK 748 563 120 15 20 20 10 180

1960-E-1261-E  
 4-9-18-80%OK 204 166 12 8 10 4 5 39

1960-E 4/1/18 1960-E-1261-E 4/1/18

351 printed  
 291 OK  
 60 disson  
 2 messy pull out  
 1 crinkled edge  
 17 pull out on label  
 2 parallel cracks  
 1 radial crack  
 6 wedge  
 17 thick  
 5 poor print  
 8 snags  
 1 rough opt.  
 82% OK.

153 printed  
 112 OK  
 41 snags  
 1 parallel crack  
 3 wedges  
 \* 24 thick  
 8 poor prints.  
 2 stains  
 3 snags  
 70% OK.  
 89% OK. if thick are not counted

1960-E 4/1/18  
 1-1 10  
 2-20 20  
 3-20 3  
 4-20 20  
 5-20 1  
 6-20 2  
 101 86

2057 printed 2-2-8 schedule (see 553-E)

2181 OK. 76.3%

10 messy pull out  
 13 crinkled edge  
 12 pull out on label  
 512 parallel ck  
 70 radial ck  
 7 wedge  
 25 thick  
 73 poor prints  
 1 crinkled  
 4 low opt  
 34 snags.

397 printed 7/1/18

257 OK. 89.3%

7 pull out on label  
 16 parallel ck  
 8 radial ck  
 2 poor prints.  
 7 snags.

1960-E. Same as 1959-E except  
 more 12.6% resin - More corrected  
 for resin in the wash like 1958-E  
 Follow up 1959-E in screening to get  
 some reformed tubing from 1959-E  
 to start north.

1960-E-1261-E 4/1/18

202 Printed 2-2-8 schedule see 1953

183 OK. 90.3%.

2 pull out on label.

11 parallel ck.

2 radial ck.

1 poor print.

3 snags.

385

records edged give 96% OK. OK. edged 4/1/18

1961-E Baking schedule for Plastics  
one lot of 1955-E and 1957-E baked  
like 1933-E except held in 200° for  
one hour instead of  $\frac{1}{2}$  hour  
See note on 18076-E

1962-E Barnicle Experiment - much equant.

~~actual~~  
 Phenol Resin 70.55  
 11.4% phenol.  
 Viscosity 27 sec.  
 and most equant  
 3.5 times of resin.  
 380 g. Phenol resin.  
 37 g. Phenol  
 38 g. Sand.  
 27.6 g. 6/16  
 35.0 g. graphite

100 g. Phenol Resin, + same number  
 of g. of Phenol Resin as percentage  
 of the phenol in the resin in the  
 first place - 37 g. phenol in 15% the 115 g.  
phenol to bring up percentage  
to 22% — this gives 100 g. resin  
 22 g. phenol

1.1 g. para  
 1.1 g. Sandarac.  
 7.9 g. 6/4  
 130 g. denatured alcohol  
 10 g. graphite —  
 bring to 5 min viscosity,

40 printed 10 printed 4/15/18  
 18 OK. 45% 9 OK. 90%  
 2 parallel cracks 1 reverse pull out.  
 1 radial crack  
 2 thick

\* 17 poor prints

1963-E varnish exp.

Same as 1955-E except  
use 120 grammes of the 1941-E varnish  
with gas blacks to see if we get fewer poor  
prints.

4/10/18 40 printed 1952-E blanks 2 each 5 min. time.  
23 OK. 57 1/2%

1 parallel OK

\* 15 poor prints.  
1 wrap

1964-E Varnish Experiment - Ch. Christmann -

100 gms phenol resin - (Para 66)

125 gms Benzt Alcohol -

7.9 g 6/4

1.9 Para

1.5 Nitrocellulose

a yellow dye which turns  
black on heating

8 Prints made - one pull-out -  
all are black but a little brownish  
compared to lamp black -

On acc of the phenol resin  
not being evaporated for free phenol  
we can not tell much about it,

||| On account of free phenol being left  
out apparently there are no poor prints  
all dear varnish men make has poor prints

1965-E varnish Experiment - Christensen,  
225 gms of regular 1841 varnish before  
thins is added,  
2 grams notroskinethyfaniline.

See 1964-E

57 printed 2-28 schedule.  
45 OK. 78.9 % OK.  
2 pull out on label  
9 parallel OK  
1 snap.

1966-E - Same as 1962-E  
except use 15g. of ggs black  
instead of 10g. J



4 min vicinity

60 printed 2-2-8 schedule

52 OK, 86%<sup>2</sup>

1 pull out on label

1 parallel ck.

1 radial ck.

4 thick

1 snap.

5<sup>th</sup> 21 sec vicinity

80 blank verniered.

44 printed

1 rounded edge

2 pull out on label

9 parallel ck

3 thick

6 poor print

22 OK, 50%

194 printed

140 OK, 72<sup>5-7</sup>%

1 never pull out

34 parallel ck

1 radial ck

12 poor print

6 thick

1967-E

Take one more verniered

1941-E and add 20 printed verniered

60 blanks varnished 2 coats 5 min 1941-E  
60 printed 2-2-8 schedule (see 1953-E)  
38 OK, 63%  
12 parallel ck.  
3 radial ck.  
2 poor print.  
1 thick.  
1 thin.

1968-E Varnish - Experiment - Torrance agent

350 gms phenol resin Run 2062 141F1.

27  $\frac{1}{2}$  gms Phenol

3  $\frac{1}{2}$  gms Para

5  $\frac{1}{2}$  gms Gendarmen

See 1941-E

for manipulation

27  $\frac{7}{10}$  gms 6/4

500 gms densit Alstet

16 gms chloro.

50 gms gas black,

1969-5  
 Small form - 114.1 g. - See 1962-5 same insect - see 80 g. product  
 to see insect.  
 374 g.  
 Phenol  $\frac{2.9}{1.25}$  g. 27.6 g. phenol.  
 Ana.  $\frac{1.8}{1.25}$  g. ~~reduced from~~ 3.5 g.  
 Candace 1.1 g. 3.8 g.  
 1/4 7.9 g. 27.5 g.  
 20 70. g.  
 Acid -

Bring to 5 min. incubation.

1970-E

92.1 g. phenol resin Tm 125 - 140 g. phenol.

7.47 g. phenol.

100 g. phenol resin containing 10% free phenol.

1 g. para.

1 g. Sandwichee.

7.80 g. 6/5

20. g. Gas liq. Absorbed to 10 g.

For one quart 3 1/2 times above.

32.2 g. Phenol resin.

27.1 g. phenol.

3.5 g. para.

3.5 g. Sandwichee

27.3 g. 6/4

1971-E

Varnish & blanch with seeds of  
irregular 5 mm. size. Some like fish and  
print regular, like chip of saw between Gals.  
1935-E Lake - seeds numerous (mostly 1933-E)  
5 Gals. no good prints of fish anywhere

1972-E Barnish 100 blanks with one  
coat Barnish showing Barnish dry  
 $\frac{1}{2}$  hour then one coat Barnish dry then  
dry day to become good all another  
coat of 5 min dry, Barnish 1933-E

1973-E same as 1959-E except  
use 13 lbs rosin - corrected for  
rosin in wood.  
Make 2 drums.

4/23/8

434 printed

772 G/K, 82  $\frac{6}{10}$

- 1 veneer pullout
- 2 crushed edge
- 21 pull out on label
- 71 parallel crack
- 15 radial crack
- 1 white spot
- 4 poor print,
- 35 thick
- 3 stain,
- 7 snap
- 2 rough spot

4/23/8

1297 found-

1040 G/K, 80  $\frac{6}{10}$

- 3 veneer pullout
- 2 crushed edge
- 24 pull out on label
- 125 parallel crack
- 47 radial crack
- 17 poor print,
- 19 thick
- 4 crushed center
- 13 snap
- 2 white spots
- 1 rough spot.

1974E Same as 1957-E  
except as follows -  
30 lbs Golden Wood  
30 lbs Sargent Wood  
12 lbs I rosin corrected  
for rosin in wood ~



4/25/18  
Gannett  
of Bennington

- 4/25/18  
3129 printed  
11 inner p.o.  
5 embossed edge  
63 p.o. on label  
313 parallel ch  
91 radial ch  
3 wedged record  
1 scratch? (found)  
18 poor print  
56 thick  
1 dent  
3 cracked surface  
3 scratches  
56 bumps  
5 silver spots  
6 stain

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Group 2: Disc Plating Experiments (1920-1921)**

This group of eleven notebooks was used during the period June 1920-March 1921. All of the entries in the first book and in N-20-08-18.2 are by Edison. The other books generally begin with entries by Edison and continue with increasing numbers of entries by Walter N. Archer, John McMullen, Frederick P. Ott, and other experimenters. The later books include only occasional Edison notes and comments, and the final book (not selected) contains no Edison entries. Other researchers whose names appear in the books include Irving Adelsohn, F. Detlef, Jr., Paul B. Kasakove, Sherwood T. (Sam) Moore, and W. J. Taylor.

The books describe a variety of experiments to improve the disc record manufacturing process, particularly the plating baths, and to solve problems with current electroplating. There are also experiments with various ingredients, equipment, and procedures.

**N-Number**

**Labels and Inscriptions on Front Cover**

**Selected Books**

20-06-04	"Disc Record"; "Sub Plating No 1"
20-06-07.1	"Mc Report 6"
20-06-07.2	"Baths Disc"; "D"
20-06-08.1	"5"; "Nickel Fast Plating Process Experiments"
20-06-08.2	"Baths"
20-06-09	"2"; "Disc Fast Plating #1] to #50 Exper Copper"
20-06-12.1	"June 12-20-To July 31-20-"; "No 8"
20-06-12.2	"7"; "Disc"
20-07-10	"July 10, 20-To Aug 19-20"; "Disc Record"; "Nickel Bath Exper."
20-08-18.2	"T-A-E No 4 Plating Disc"

**Books Not Selected**

20-08-20.2	"Varnishing Moldes with Rubber Cement from Combination Rubber Co. F.P.O."
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**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Plating Experiments**  
**Notebook, N-20-06-04**

This notebook was used by Edison during June and July 1920. The entries pertain to the plating processes involved in the manufacture of disc records. Included are notes and drawings on a variety of electroplating experiments, among them trials with different plating solutions, plating equipment, current ratings, and methods. The experiments include attempts to design an anode for the copper plating molds and a mold holder. Additional experiments relate to the ingredients of the copper solution focused on the specific gravity and temperature. Also included are reports and calculations regarding record mold electroplating production schedules. In addition, there are detailed descriptions of production methods and work in the Graphiting, Plating, and Anode departments, along with a description of the procedure for receiving, storing, graphiting, and copper plating wax disc record masters. There are occasional notes about matters to be further investigated and suggestions about improvements or solutions to current problems. Beginning on page 124 is a list of fifty-two "Things to be Inspected" during the course of production. The last page contains a list of "repair work" to be done. The notes indicate that Edison was assisted by James M. Burns, F. Dettlef, Jr., John McMullen, Sherwood T. (Sam) Moore, Frederick P. Ott, and an experimenter named Stout (possibly Frank M. Stout). The front cover is labeled "Disc Record" and "Sub Plating No 1." The book contains 134 numbered pages, some of which are blank, followed by 6 unnumbered pages of notes. Approximately 100 pages have been used.

Expts. June 4 1920 /

New Cast Copper anode put  
in the saturated  $\text{CuSO}_4$  sol.

8.2 Volts at bus bar

Could only get 2 amperes  
on am. Meters - Res Carbon  
removed from circuit —

8.2 Volt across bath  
terminals - held a piece of  
old  $\frac{1}{2}$  worn Cu anode  
in soly - attached new anode it  
jumped to 20 amperes

showing new anode coated  
with red cuprous oxide —

Took out anodes - filed  
surface of new anode  
put back — 8.2 V +

15 amp - kept around 16 to  
18 amp all night - 12 hours

Solution used 20 gals. water  
saturated with  $\text{CuSO}_4$  at  
80° Fahr - filtered off <sup>anode</sup> residue  
2 liters strong sulphuric acid

2

3  
 found in, adding Acid it  
 salted out some crystals -  
 Added other solution Cooled  
 to ~~80~~ temp 80°. 1 gal.  
 water, still crystals, added  
 another gal - found in  
 Morning crystals on rotating  
 disc added another gal.  
 All together 3 gals.  
 still some crystals —

From this think we should  
 determine formula of a  
 salt would sol at 55°  
 which is as low as plating  
 Rooms ever get.

I saved a Cu discard in  
 4 parts 1



Made 1 section Anode gives  
 18½ amp - I am pulling it

4



test -

A test with 040 hole  
 + jet clear across  
 music pressure  
 3" of Mercury  
 = 6 lbs pressure,

5

in for  $\frac{1}{2}$  hour to see if Constant,

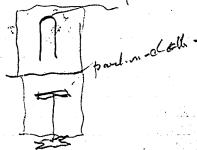
a preliminary test holding  
 $\frac{1}{4}$  section in anode Dept  
 by hand -

When $\frac{3}{4}$ " from partition	amp
" "	20
" "	19 $\frac{1}{2}$
2	17 $\frac{1}{2}$
3	15 $\frac{1}{2}$
4	14 $\frac{1}{2}$

When partitioned away &  
 $\frac{1}{4}$ " from back 12

This is fine with such a  
 small area anode

now bend a  $\frac{1}{4}$  section thin



6

7

With 18 amperes +  $\frac{1}{4}$  section  
of Disc as made in  
Removing cloth partition  
made no change still  
18 amp showing clean  
cloth no change of Pressure

The  $\frac{1}{4}$  section I been  
using was greasy  
+ gave 18 amp but  
when cleaned of grease  
by Key washed + put back  
gives 21 amperes -  
 $1\frac{1}{2}$ " away from cloth  
partition

8

9

Don't put 2 centrifugals  
in series but the jets gave  
no more output less than  
than before. No change  
could be detected. Altho  
Washington Eng. said it  
would double the pressure.



1/4 section  
vent wings  
1/8 apart  
flat case  
1 1/2" from  
cloth position  
17 amp

Edgewood  
gives 15 amp





In old Copper anodes  
The part facing disc is more  
than 3/4 gone back very little  
eaten. No holes in to allow  
of back ring utilized

The double cloth  
diaphragms when put  
in stick up one side  
or the other. That can  
put them in anyway  
The pulling on of Coats  
even them up.

I put in 1/4 section flatwise  
Connected it. 1 1/2" from  
Cloth - Cyanided 18 1/2  
amp - in at 12 35 pm for  
a run to see if changes  
at 12 40 dropped to  
10 amp

This shows all previous  
test held in momentarily  
are NG - Evidently 1/4  
Section too small to take

The Current & powerages

12 42 - 2 amp

12 50 3

12 55 4 1/4

1 pm

1 05

1 10

1 15

1 20

1 25

1 30

3 30 pm

4 pm look out

Cyanided Cathodes  
with black on a Copper  
showing too high density  
of formation from oxygen  
CNO

<sup>12</sup>  
Washing Jet for Nickel bath

Stouls test on O40 hole covers

Whole of music blast test

O40, hole	2 inch	Osr	500cc	4 1/2 pressure
O35	2 "	55	"	4 1/2 "
O30	3 "	45 sec	"	4 1/2 "

Only O40 covers music

O40	4.166 cc per sec
O35	1.800 "
O30	2.2 "

O40 360 Liters per Bath 24 hours  
4 lb pressure

200 baths 72000 liters or 18000 gals  
200 amode " " 18000

Total gals - 36000  
15000 gals hour

Each bath fresh solution every  
24 minutes

This is more than ample  
Once hourly would be enough

13

McMullin took a Cu Discard  
took it to treatment Room -  
Hydrogen cleaned it 8/4

Put it in Nickel bath 5 ampours  
Covered OK in 1 1/2 minutes,  
So if Ni bluish on all record  
Material is 5 min it will be  
ample

Fred Ott with Mercury gauge  
funds O40 jet with 2 3/4  
inch column covers whole  
of music  
If 1" Hg equals 8 oz then it  
gives pressure of 22 oz  
or 1 lb 6 oz -

Fred made a mistake it is  
3 3/4 inch Hg. or  
30 oz pressure -

14

7 PM

9  
10  
11  
12  
1 am  
2  
3  
4  
5

9 30 am  
9 45

Took out anode, it is complete but along

9 50 am  
9 52

10, 10 -

Coated anode after thick dissolved off very slightly with steam. Washed off & put in bath

10 25

10 26 -

in the Creek,

10 40 -

11 15 -

11 40 -

12

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15 -

15.52

15.50

14.75

14.00

13.50

13.00

12.50

11.50

10.50

8.50

7.00

6.50

6.50

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

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7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

7.75

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

at 8 30 put in gal. water of gal. water. been put in from

Reg Cu discard 1 lb 3 oz <sup>500</sup> 120g  
 60 discs - 12 halves as  
 anode probably gives 3 to 4  
 new discs before scrapping  
 day 3.

I now put in a cast Copper  
 Anode with support strokes  
 cast in. This has had surface  
 filed off both sides - but 1 side  
 has cavities & this had to face  
 disc & its only partially  
 filed -

4 45 pm - 19 1/2 amp

Average Amp hours already plated  
 on Row provisionally 16.4 amp  
 for 14 hours 226 amp hours

5 35 pm 16 1/2

see opposite page

not ~~now~~ put in 2 gals more  
 now 5 gals over the original 20 gal.  
 Carried forward to page 23

## Note

Our Reg Cu Sol  
is kept Spec Q 1,140 to 1,150  
Try keep at 1,150

Sol on account of Resin  
tends to heat up. so they  
pass solution thru Coats  
surrounded with Well  
Water to keep temp down

Better investigate

Rough Calculation show we  
must handle 500 Rps per day  
average for Reg dip 5 mins then  
ready for Varnishing - For Redips  
4 minutes

If we call the cycle 5 mins  
Maximum 288 Rps 24 hours  
per Cleaner + 8/4 section - Assume  
250 only - 85 on a shift 8 hours

If we put in 3 Banks we get  
750, while only 500 wanted

We then have time for Varnishing  
2 Coats - on on redips already  
Coated a recoat put on -  
Recoat 3 hours - + Reg Coats  
3 hours 1st Coat 2 hours second  
Coat

If we congest 80 Disc in this  
dept always we get above  
drying time - Hence  
Racks for 80 wanted -

15

## Note 5 5

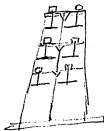
If we use 1300 Cu baths  
 with 1/4 section built up sections  
 for anode we save 1440 KWH  
 daily - if costs 1 1/2 Cents KWH  
 it is \$21 dollars a day  
~~but~~ even Cast anodes for when  
 built up anodes are used we get  
 25 amps with 9 1/2 V where if  
 Cast anodes used get only  
 20 amps - + 260 baths  
 less or only 1040 Baths.  
 necessary + no impurities  
 brought in -

I will try Working Mould built up  
 anodes with Ni on to see if OK -

19

If Can deposit ok with 20  
 amperes only requires 43 hours for  
 a disc - + 860 Baths  
 If 24 amp can be used requires  
 only 36 Hours + 1/2 the baths 400

Racks



For either - Move down  
 Var up best for drying + move down  
 best on account of dust -

June 3 1920

	Repair	
Mould holders on hand		2091
Good		1320
To be repaired		113
Rings OK for use		105
Bottom plates part finished		116 OK
Master Mould holders		

6400 records permitted daily  
 needs 80 presses - these hold  
 960 Record pair 1960 - Mould  
 holders hence the other holders  
 should be repaired as we should  
 have 20 loads Extra this is  
 440 Mould holders -  
 Total 2400 actually needed  
 leaving 1000 for assembling  
 room to spare for stock  
 Lahr says can repair the 1320  
 quickly 20 daily

22

At plating plant Mc tells me they keep temp of bath down to  $74^{\circ}$  to  $78^{\circ}$  by Cooling Coils. These coils are under individual table —

I think as solution of bath is changed every maker Coils should be at one Central point say at Cracks +

also think we should have fitter pieces

Belter has increased diameter of his slip plating parts  $7\frac{1}{2}$  inches slips 6 inches apart, powerful solution



slip —

2 inches surface area density of  $1\frac{1}{2}$  amp per sq inch 8 hours

850 OK — weighs 17.85 grams

Not only the day warm than room Callipers 030 —

Continued from

23

226 amp hours page 14  
already do

1 PM	17	amp — 1165 Spec 9.
1 30	17	
2	16	Spec 9 1170 "
2 32	16	Spec 9 — 1172 "
4 30	14	" 1175 "

Temp in Crack  $85^{\circ}$  taken all p.m.s

6 pm 15 Spec 9 1175 Temp

12 midnight 14  $\frac{1}{2}$

4 am 15

8 am 15

Temp Crack during night  $80^{\circ}$  @  $85^{\circ}$

Spec 9 1180 Some evaporation

The new rubber washing at p.m. in 4<sup>th</sup> June 3 pm + adjusted —  
OK on 5<sup>th</sup> 9 am (without Touching) S  
or adjustment

\* we should keep it at  $1170^{\circ}$  by adding water — added  $\frac{1}{2}$  gal water at 850 amp + run for  $\frac{1}{2}$  hour

See next page —

24

Nickles, Electrician went over &  
measured several Cu baths for  
drop of Voltage across terminals  
Varies from 4 To 6 Vols -

See 23 page 10 | Cast Cu \*

25

June 15<sup>th</sup> -

6 pm

9 "

12 "

3 am 5<sup>th</sup> June

6 am "

9 am "

12 night

4 am -

6 am

10 am

12 noon

2 pm Sunday June 6<sup>th</sup>3 35 pm Sunday 6<sup>th</sup>

Removed for stripping

Put in another

see p 49 -

Keeping Cast Cu filed  
anode in -

Speed

V

Amps

Gross

1180

9 1/2

15

1180

:

16

1170

"

18 1/2

1170

"

19

1175

"

18 1/2

1175

"

18 3/4

1175

"

20

1175

"

19 1/2

1180

"

18 1/2

1175

"

18

1175

"

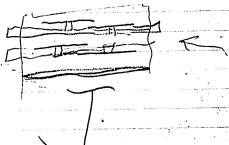
18



26

Note 7.8 on line +  
with 30 amperes on here  
2 Cells - Here 7.3

Drop of .5 of Volt  
for 30 amp  
Amperes off reads here 7.7



disagreed

27

Started New Bath, 4  $\frac{1}{4}$  sections  
off Cu dissolved - Connected one  
1 $\frac{1}{4}$  section started at 16 amp in  
15 minutes dropped to 9  $\frac{1}{4}$  amp  
showing density on this section  
Anode too good,

Connected up another  $\frac{1}{4}$   
section. Went to 19 amp

1.40 pm -	15 $\frac{1}{4}$ one
1.46 "	15 $\frac{1}{4}$ two
1.55 "	
1.56 pm	16 3 $\frac{1}{4}$ sec
2 pm	15 $\frac{1}{2}$
2.15 "	15 $\frac{1}{2}$ <del>start</del>

1.52 Bath

2.18 pm	15 $\frac{1}{2}$ 4 Sections in
didn't raise amperes -	
3.32 pm	15 $\frac{1}{2}$
4.35 pm	16 -
9.00 pm	16 $\frac{1}{2}$
12 midnight	15 $\frac{1}{2}$
4 am	15
8 am	15

See page 43

28.

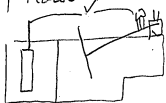
Note Diller - on rapid plating  
~~found~~ on start Speed of fuel  
1135  
at end of run 1180.

How did it raise —  
find the reason  
Besides Evaporation

29

Bus V 7.5 net volting 31

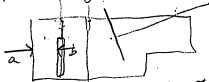
Beldings Man made some  
measurements on V + amp of our  
Cu Baths in 4 Rows



Bath	V	amp	
173	2.9	7.8	No 1 Row
177	3.2	8	
138	3.4	8.3	
139	4.6	11.6	No 2 Row
144	4.4	9.8	
146	4.9	9.5	
88	3.8	10.7	No 3 Row
89	3.9	11.2	
90	3.9	11.1	
65	4.6	11.8	No 4 Row
66	4.4	10.3	
67	5	11.8	
		10.5	
		2.6	8.5

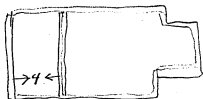
Says his Amp Meter reads 2 amp  
to high

Beldingman tried the  
anode  
cloth



a + b	3.6 inches apart	8.7 amp
"	4.4 "	10.3 "
"	5.3 "	12.2 "

If anode is advanced towards  
cloth partition 1.7 inches the  
amps increase from 8.7 to 12.2



Thickness anode cast  $1\frac{7}{8}$ "

Evidently anodes should be as  
near screen as possible,

Weight of Req Cast Anode Copper  
 $16 \frac{1}{4}$  lbs

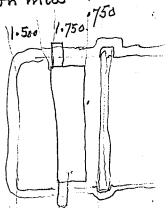


This weighs  
 $11 \frac{1}{4}$  lbs

from Cast probably can plate  
off  $3/4$  or 190 oz of Copper  
Each discard weighs 20 oz  
Cu - g - Copper discs  
or backings -

Probably 6 from multiple disc plates

35  
The anode lugs should be  
Cast on thus



→ 4.000 ←

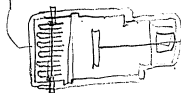
Possibly anode will Cant  
when new. may left Cover  
a little - try it

We now control Generator field  
by Rheostat in Expnd Lab

Think we should have a jack  
for Ampers so man can walk  
along + show in + read amp-  
Volts not necessary -  
Possibly 1 big amp the can see  
all over room + a switch -

All Copper discs 37  
We now start a Third Bath 3 Bath

With  $\frac{1}{2}$  sections of a Cu disc and  
threaded on a rod with washers  
occupies almost whole of Anode  
Compartment



$\frac{1}{2}$  section bent thru

washer -

Record In

2,20 p.m. June 5th

250

Now 10 Volts on 18 in

305-9  $\frac{1}{2}$  "

Well keep it all  
night,

3 p.m.

6 "

8 "

10 "

Buys

8

8

10

9  $\frac{1}{2}$

10

9  $\frac{1}{2}$

9  $\frac{1}{2}$

9  $\frac{1}{2}$

amps

21

21

25

25

26

25

24

24

Grading

35

35

31<sup>st</sup> June



Buss  
Volts

Amperes

39

Crank T

	Spec 9	9 1/2	24	80
12 Midnight	1170	"	25 1/4	85
2 am 6th June	1175	"	26	86
4 am "	1175	"	25 1/2	88
6 am "	1175	"	24 1/4	86
8 am "	1175	"	23	81
10 am "	1180	"	23	80
12 noon "	1175	"	23	80
2 pm "	1175	"	24	80
7 " "	"	"	23	80
10 " "	1180	"	23	80
12 midnight -	1175	"	23	80
2 am June 7	"	"	23	80
5 " "	"	"	23	80
9 " "	1170	"	22.5	82

Oct 1145 am June 7 1920

4  $\frac{1}{4}$  sections -  
Made by Burns

48

Started on 4th

569

V

amp Grock

2.20 pm -

15  $\frac{1}{2}$

4 pm -

16

6 pm

16

9 "

16

12 midnight -

15  $\frac{1}{2}$

1 am - June 5

16

4 "

15

6 " "

15

9 "

15

11 " "

16

12 " " noon

1170

86

2 pm

1170

16

88

4 pm

1170

9  $\frac{1}{2}$

16

88

7 "

1170

9  $\frac{1}{2}$

15

88

10 pm

2 sections taken off

1170

9  $\frac{1}{2}$

11

88

11 "

9  $\frac{1}{2}$

10  $\frac{1}{2}$

12 midnight

9  $\frac{1}{2}$

8

1 am 6th June

9  $\frac{1}{2}$

9  $\frac{1}{2}$

All Cation off

9  $\frac{1}{2}$

7  $\frac{1}{2}$

About  $\frac{1}{2}$  of one quarter  
section left

entire

51 Bath hours at

12 amp per

1 Xicc -

Certainly can use up  
80% or more



Today support legs  
 Eaten off Due to  
 flooded apartment —  
 too much liquid put  
 in —

Started in 304 Bath  
 a multiple Dist in  $\frac{1}{2}$  -



	SpG	Volt	Temp	ClockT
8, 15 pm 6th Sunday	1175	9.5	24	80
4:30 "	1175	9.5	20.7	80
5:30 "	1175	9.5	20	83
8 - "	1180	"	25	80
10 pm "	1180	"	20.5	80
12 Midnight -	1175	"	20.5	80
2 am June 7 <sup>th</sup>	"	"	23	85
6 - " "	"	"	23-23.5	80
9 " "	1170	"	22-23.5	82
12 Wednesday -	"	"	24.5	83
2 am June 8	"	"	23.5	80
7 am "	"	"	21	81
12 noon "	"	"	22	82
5 pm "	"	"	23	83
Taken out				
864 Amperes				
OK -				
Callipers 066				

4 Bath - June 8 1920 47  
New disc put in

[illegible]

In Bath No 1  
 Same angle - 1 Dec taken from it<sup>49</sup>  
 These is 2nd Dec

	Speds	Valts	Deep	Crack
Sunday 6th				
4.50 pm - "	1175	9.5	20	—
7.09 " "	"	"	21.4	—
10.09 " "	1180	"	17.75	—
12 mid night	1175	"	19.5	—
3 am June 7	1180	"	19.5	—
6 am " "	1175	"	18	—
9 " " "	1170	"	18	—
12 noon " "	1170	"	21	—
6 pm " "	1175	"	17	—
12 mid night	1170	"	18	—
6 am June 8	"	"	18	—
12 noon " "	"	"	17.5	—
1 pm " "	"	"	17.5	82

NO 5 Bath - is 6 full discs  
Bent over & not cut



This makes 6 full discs bent not  
cut in  $\frac{1}{2}$  like that in NO 4 Bath.

ON 4 45 PM	6 <sup>th</sup> June	Speed	V	Acap	Graph
4.45 PM		1175	9.5	24	
7 "		1180	"	25	
10 "		1180	"	19	
12 Midnight		1175	"	23	
3 am		1180	"	24	
6 am June 7 <sup>th</sup>		1175	"	22	
9 " "		1170	"	21	
12 " "		"	"	22	
4 am June 8 <sup>th</sup>		"	"	20, 25	
10 " "		"	"	20	
7 PM "		"	"	23	

Taken out  
Callipers .068<sup>5</sup>

105 Bath -  
2nd Disc put in

[illegible]

With the 040 jet if not striking  
disc squirts out over 10 ft  
showing great washing power

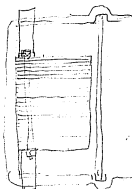
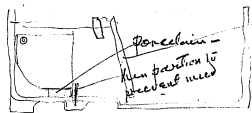
When the disc gets rubbing on  
inter run the nuts scatter the  
solution over rubbing area  
must put up a shield

One disc went 19 hours or another  
25 hours before nuts get large  
enough to scatter the liquid

Just come from dinner found  
supports of plate and the eaten  
off cause apartment  
flooded, liquid nearly overflowed  
partially covered thin support

Reason is that regulating  
cock wide open & flow  
more than clothes would  
filter through - Must  
have definite hole 040 -  
either open or closed cock

at 18 kV or 20 amp  
 at 360 amp having Copaloid  
 stands off inside at edge  
 generally but not enough  
 to prevent liquid washing  
 jet from going to edge



Think can use solid made  
 of  $\frac{1}{4}$  sections using a porcelain  
 rest on bottom covering a  
 considerable area so as not  
 to bend rubber at bottom

The only fear is the flow  
 Copper float over

and get an second will make  
Nubs.

All I found in bath after  
 $\frac{1}{3}$  of  $\frac{1}{4}$  section anode eaten  
away was extremely fine  
Metallic Copper - This  
settles in water in 5 min  
most of it 1 min -

The thing to find out will  
these Cu pieces form  
nuclei for Nubs.

Think best is going to be  
the nickel basket fed with  
pieces of disc cut by  
machine so all will  
not be parallel



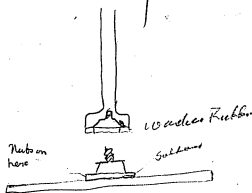


Jan 14/20  
 For 3 days 6 Rubber  
 jets only choked a little  
 The original jet 5 days  
 not choked

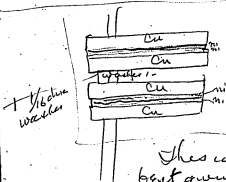
This jet is a success & will  
 be made standard. Off note  
 under pressure sufficient  
 to blow stream across  
 even a warty outer edge -

We should put in a  
 different colored cover  
 when holder needs  
 Repair -

June 10 1920  
 The holder made by Moors



Came out without any leak  
 when rubber washer in so far  
 its a success -



Has  
 one in  
 why now

This covered by  
 best gummy adhesive  
 solution, keeping this  
 together -

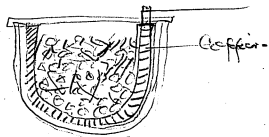
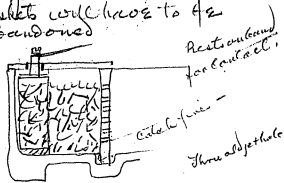
Experiment on washing off  
finger marks, having a trace  
of lamp black to make  
conspicuous - Washing  
at different angles & at  
times -

Try Experiment with gloves  
& also fingers -

Must have standardized belts  
diameters right to grip the  $M$   
also a fastener that will adjust  
the length easily & surely  
without twist if possible

2<sup>nd</sup> Test Experiment with Nickel  
Basket front face eaten  
away - This shows mechanism  
rolled in will not stand  
in acid Copper bath near  
the Cathode or

its probable electrolytic  
Ni would stand for a time  
but for a Swiss Mining Ni  
basket will have to be  
abandoned



Copper <sup>prior</sup> twisted to get minimum  
weight -

One advantage of this is  
Cheap + simple + smaller  
area from anode towards

the disc which succedes  
deposited on edges,  
possibly the weight of Gally  
got too hot with alcohol  
like Rubber - but it broke  
up from the table & lined up  
it will recount this -

As there are remarks about  
Crystallization at  $117^{\circ}$  &  $119^{\circ}$  -  
 $80$  to  $83$  degrees, I think we  
shall have to weaken the  
solution a little.

Tried scraping off nuts with end  
of white pin stick. Comes  
off OK 2 minutes after -  
It takes off ~~most~~ the Varnish  
whose nuts removed. Many  
Cause fixed by Varnish  
the nuts places but when  
nuts had must be removed  
all over. The 2<sup>nd</sup> did the  
Varnish dry & hard -

Wax Records handled June 15 1970

Come from NY in Tin boxes - sealed up, 12 put in box & shipped by Colls. on other Expresses in Melbair box if rain get on would prob be bad NO3. Wax record of the time is always brought over by Melbair. The box no 3 Delivered to Vault.

Grafing Dept gets orders to take out get orders to take out every day except Saturday - 12 at a time all are taken out as fast as they collect.

Taken to grafing room - in this room an eye inspection made for injuries by Dempsey & McM. brother they don't talk when inspecting - defect found it noted, held Jackson Waller Miller when he comes over only few, 1 in 6 months

12

Number put on - taken out box blow off with compressed air. Air acrossed thru Cotton Cotton cleaned once with Nozzle has Cotton also -

Put in Grafing Machine - 3 men to grafite, 1 can grafite can hand list, yr

Grafite made by us Golt does it, find out more about this & test it -

Holes are drilled in wax blanks at 1/2 inch before sending to NY

Dempsey & McM put pens in wove up look under Micro. Set of OK just a cheap test -

take it down to plating  
noon - lay it down &  
blow it off with compressed  
air, from same source  
as the flares -

Put on a Spider -  
Put in bath -

Start 1 amp.  
when  $\frac{3}{8}$  covered  $1\frac{1}{2}$   
"  $\frac{1}{2}$  " 2  
"  $1\frac{1}{2}$  "  $2\frac{1}{2}$   
" 2 " 3  
"  $2\frac{1}{2}$  "  $3\frac{1}{2}$   
" 3 " 4

" Music Covered 5  
Label Covered 6

When all all covered

put at 8 amp then

1 amp every 15 min up  
to 15, then leaves in 4  
hours.

Then transferred to Genl  
bath for 96 hours 12 am

Temp Bath 74 to 78.

Specy 1,150

Only day shift do 12 every  
day +  
used jets.

We must study jet & move  
jet & determine how often  
it is to go to prevent affecting  
grafite -

Mc says Maser is larger than  
working moulds abt  $\frac{1}{16}$  -

If hole is not drilled could  
make new pair of holders  
& Maser could be larger  
Prostagale -


To Twin edges Goll says  
4000 cycles 7 min -

stripping  $\frac{1}{2}$  min but marking  
mould etc put in boxes etc  
4 minutes,

Says all masters have hole  
closed - done upstairs  
also ring put on -  
Says. We shall need more  
Vault room right away as  
masters etc now require a  
box instead of the thin tin  
holder -

I tried 75 parts Cusoy  
mixed with 25 pts Mussy  
The Copper plates acid fine  
strips OK & it seems to be  
excessively soft not a  
trace of spring to it  
more like lead

76

What we need in handling is  
Hardwood benches. 2" thick -  
also  of thicker wood  
a hard wood

Men to clean all the time  
nothing laid around.

Plating Dept in 24 Hrs has  
trouble with pumps, air  
jets in tanks should be raised  
or pumps lowered to prime  
the pumps thoroughly

Also Extra pumps arranged  
to provide in case  
accident.

In our Nickel bath in Expt Dept  
We have approx 6 gals  
Mussy - it peels on edge  
after a while - I will  
put in acetic just enough  
to make full acid to litmus

As I think it is necessary to  
keep iron in solution & prevent  
it from being in bottles

I tried wiping the 64d Copper  
under water & also  
in air with finest  
quality of sponge

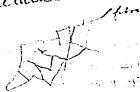
It don't harm surface but  
after cleaning electrically  
it sponge rubbed over  
vigorously. The surface  
of the electrodes is clean when  
sponge deposits something  
from itself on metal etc  
which water don't wet

Can't use sponge

Try silk under Micro  
sponge has sand particles



Even the highest grade —  
Sponge is locked together  
animal matter fibres.



I find that the 8/4 on copper  
if deep blue is removed by  
being Cathode in cleaning  
tank. S.S.



I find MacM hydrometers  
Reads 1255 + about  
Read 1270 Evidently  
should have 2 standard  
hydrometers in a case  
& all used hydrom checked

80

In Plating Dept they roll  
off the nuts after plating  
but they come off hard because  
they turnish before pulling  
in 8/4 —

Whereas if they turnished  
after 8/4 they would  
brush off & probably  
not break off turnish —

Detter is trying Expert with  
nickel faced slips, cleaned  
& put in 8/4 ~~for~~ 1 min  
strength from 1 min to  
2 hours — 1 2 3 4 5 + 6

4+5 stuck on 5th run = 1 2 3 + 6  
OK — I feel sure I failed to  
dip 4+5 after cleaning

So far 8 times OK trip 1 2 3 + 6  
OK — Clean 20 sec dip 10 min  
8/4 — for further info see ahead

with acidic acid. just red to lilac  
 1051° 7.4 hr in Bath - deposits  
 grey - perfectly flat, after stripping  
 no peel put in 4g amp -  
 Removed - peeled perfect,  
 there was enough Ni hydride to form acetal Ni  
 By bath  
 Put in another think it was  
 Copper disc - put it right on  
 at  $1\frac{1}{2}$  amp - put it to  $8\frac{1}{2}$   
 amp after 20 min went  
 to  $9\frac{1}{2}$ . Probably caused  
 by heat in bath, now 104° F.  
 The disc run 13 hours all  
 together, 11 hours it was  
 10 amp - 2 hours  $9\frac{1}{2}$  + 8 amp  
 on start,  $9\frac{1}{2}$  volts ~~at 100 F~~  
 By plating 10 hours  
 at  $9\frac{1}{2}$  @  $9\frac{1}{2}$  amp get  
 90 hours which is all  
 62 OK - we should  
 try for 10 amp 10 hour  
 or as near that as  
 possible

8✓  
 The disc was perfectly flat.

Weight of Feed Anode



Copper piece 16 lbs -  
 This is weight 16.4 lbs of  
 Cast anode

Reg Cu disc end 051

Wt of 1 lb 3 oz -

The disc is in pieces  
 not twisted as much  
 as the 3 previous  
 baths.

Indicates when I put a Ni strip  
in 1 Min 8/4 for 15 hours  
that holes are Eaten in face  
some round & others irregular

This looks like dirt on surface  
of liquid. When disc is  
immersed the film is drawn  
in contact with the face  
of the disc & covers it - as  
the float stuff is porous  
it plates (like it) but plates  
spongy & the 8/4 Eats it

We could blow the surface  
if we now have a place in  
Rubber bath to do this

This may not be sufficient  
if a 2nd disc was put  
in same time in advance  
say 1/8 inch it would  
take the film & on  
withdrawing from bath

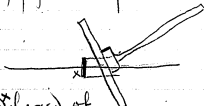
84

would carry film with it

Also when rotating the  
films formed on surface  
must be carried down  
continuously

These films I am sure  
is the cause of only  
printing 500 before getting  
rough - if they were  
eliminated I should get  
1000 or more

Another bad thing is our  
solutions are cloudy  
They are never clear & these  
colloids including franchipani  
get on disc & give rise to the  
spongy plating



a band fixed of  
Rubber would stop film getting on

We must have better press. for Nickel  
baths more efficient  
have a skimmer to stop  
filings, ~~perhaps~~ ~~maybe~~  
at a 75 @ 100 lbs pressure so it  
filters through ~~considerable~~  
mud.

Perhaps must be wholly  
immersed - but then gas bubbles

Probably fullers Earth to  
clarify from Colloids &  
filter press -

The faster it plates the less  
chance of getting colloidal  
clots & less spongy if  
gas don't increase

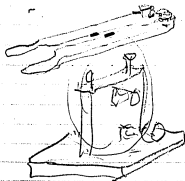
86

5

I am dipping 5 Ni strips  
Clean all ~~220~~ 20 seconds  
Dipping ~~84~~ 20 seconds

Thereafter no cleaning but  
just dip all 10 seconds in  
84 -

These are all in one bath  
30 Cryst NiSO<sub>4</sub> - 3 strips  
none black to Ni but ~~just~~  
stripping all Torr 2nd all but  
1 Torr 3rd stripping 3 Torr 30K  
I cleaned one by mistake &  
discarded it



works ok  
cool

Be sure we put grease cups  
on shaft bearings so oil  
will not run along shaft  
get on belt & when thrown  
off rest on table & have  
oil washed down in  
trough

Wood might be better -  
pure Babbett - get rid oil  
altogether

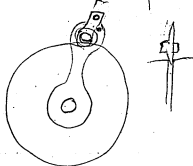
Fix bearings on pumps -  
so no oil can get in

88

The knife separator for forcing  
apart the 2 disc works OK  
on the Moore holder but some of  
the old holders not turned down  
enough or its troublesome to  
run wedges in & separate.  
Moore is true & separates  
with the greatest ease.

Moore will put machine  
in good shape for practical  
work.

Think instead of wooden  
wedges a V wheel might be  
better



It will only hit edge

Note

90

I have now put a skimmer in the Michel bath. The jet is not being used with the skimmer.

The Ni plated without jet or skimmer was very warty, Mac noticed when he put it in & it started rotation lots of particles on the surface went to the Dura & Chung — But when we put skimmer on none were noticed. This skimmer may be a very good improvement to produce quiet record.

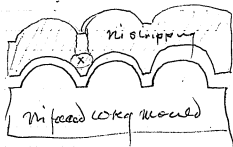
On looking at rough side of this shipping it confirms the other one which had no jet. There is scarcely a hole in the music — both rough surfaces have same irregular appearance & quite different from those with jets on — However the smooth part of Edge has many deep holes just as the one without jet or skimmer.

92

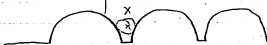
The Nickel Strippings .008 to .010  
with jet (Rubber) .040 hole. I find  
full of minute holes when looked  
at in microscope on rough  
side.

Raced holes

Hole



Bubbles all about same  
size get into bridge work screen  
of working mould



+ cling to it all through

Note

94

the platform, under Means  
looking at rough side see  
innumerable holes perfectly  
round all along the bridge.  
wall space - Very seldom is  
one seen on the place where  
ball tracks. Where the  
holes are very thick one is  
seen in track but they  
are very small - less than  
001 whereas regular bridge  
wall has 1/8 or 1/4 holes and  
002 about generally all  
of one size.

Noticed on the stripping  
where we did not use the  
jet it is difficult to find a  
hole

I think the jet is bad that  
it does more harm than  
good - The large amount  
of liquid & great force churning  
+ puts air in the liquid making  
fine bubbles & these attach



themselves to the disk +  
stay there,

I have just removed a new  
nickel stripping which is  
the thickest yet.  $179\frac{1}{2}$   
amp hours - + it has the  
least nubs + is smoothest yet

This had no jet, But was  
provided with a rubber  
skimmer



to stop surface loss on dirt  
from running towards the  
disc

The one without skimmer or  
jet has many isolated nubs  
hardly a hole in music +  
plenty holes on edge smooth  
part -

It must be remembered I am  
using nickel faced working  
Mould discs & they have  
not been cleaned perfectly  
mechanically - especially  
down in bridge Wall Canyon  
& on smooth part

No holes show on  
finished side -

There is 001 wall ok  
when the bubble attaches  
& clings all three plates



Probably when back gets  
rough the bubbles can  
cling -

98

This one without jet has  
scarcely any red lead rubs  
scarcely any holes in Hurec  
but plenty on edge on smooth  
part,

It is probably that only  
The skimmer should be  
used & the speed of  
disc should be diminished  
so it goes very slow

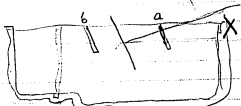
Fry slower speed by  
changing drive pulley  
driving belt to bath  
say 2" mean driving diameter  
Copper Bath  $4\frac{3}{4}$  Rev Min  
in here.



Took off a Nickel. had 203 1/2  
amp hours - 13 1/2 hours and the  
thick some mibs otherwise  
smooth. No holes in smooth  
margin found only 2 holes  
in inside 002 on bridge  
wall - Very Good

Had not wash yet, used  
Skimmer -

I find the reg rubber  
skimmers bad as they



Collected a large amount of  
skimm which probably  
comes out in gas at time.  
I will remove them as

180  
unnecessary = at X I wiped  
off 1/2 a thumbful of sticky  
greasy oily muller where  
skimmer had washed up on  
sides. This would all have  
gone to overflow removed  
by filter cloths in fuller  
papers -

We must use the skimmer  
This must be all rubber.

The copper eats off altho  
not connected to circuit  
it oxidized at junction of  
the liquid & acid develops  
oxide.

The feed to anode jet must  
see the stream off  
it should be about the  
center -

Note should be in  
cover to remove it & not  
a hole

The overflow must have  
Copper screws in Copper  
baths + Ni screws in  
Ni bath & should be  
adjusted even across  
surface -

If cloth separators are to  
be used must have  
porcelain as heat  
makes rubber band bad  
The head of water does it

I notice our table is wrong  
baths not level - rubber not  
on good - if overflow of a bath  
occurred it wouldn't run  
in trough fix it -

I really don't think we  
want the filler cloths they  
make more trouble than they  
do good - If our letter press  
works perfect there is no  
use for them -

I have now taken the back skin  
also cut a square hole thru skin  
next inside 1st surface skin  
runs towards this hole right  
next to overflow - no clothes in

Use removable Rubber Skimmer  
Believe this will give  
fine results -

10% must wash & soak over  
Rubber bath in ~~the~~  
Soda 18% to get rid of  
oil etc in Rubber to  
guess -

I use a good feed into  
anode side -

---

General Inspector Can  
draw a battery strapped &  
use flashlight to inspect  
skins etc can call him

104

The skimmer no partition hole  
thru a skimmer baffles - 1st cell  
amp 100 amp hours - 8@9  
moments thick perfectly  
no warts full of holes  
on bridge work at each  
none on face this is 1st  
time this has occurred by  
skimming 3 others  
same conditions no hole

Noticed this disc was  
dirty when put in -  
There is some condition why  
the bubbles cling to bridge  
wall depression & not to  
others -

Those which show no  
holes show tracking distinct  
whereas the one with holes  
~~show~~ scarcely shows tracking  
surface - perhaps ampere  
too high & makes gas -  
I find what they call porous  
is one mass of holes ~~etc~~

It looks like a scum of  
grease

Only 2 persons are to be permitted  
to fix the pumps -

Man named Jack a Russian formerly  
under Bismarck repaired all  
the pumps. I say never leaked  
no did it even strip threads  
in hand rubbers

Just found out source of oil  
in bath. All pumps to  
prevent leak ducts had  
packing has lots of  
tar like stuff thinned with  
oil doused all over when  
they use this everywhere.

Mango Pitch thinned with  
oil I just ordered all  
of it out of plant &

106'  
Should a leak occur its to  
be fixed right without tar -

I find some of the  
working Mould  
discards which I am  
using to plate on  
are discolored in spots  
I find this is removed  
by soap & then rubbing  
this is then much baked  
on -

I took a Michel female  
that had several taken from  
it - had a hole put in &  
played it. I caught hardly  
at all there was any surf  
didn't hear a snap in the whale  
& only few light chuckles

it seemed to have a malleable  
surface in the grooves but  
when sponges went over it  
it brightened very much

from experiments with clips Ni to  
Ni + think ~~20~~ 20 or more  
is safe -

With 1 min 8/4 strength  
10 sec waved dip well  
washing is OK + still  
going used 4 strips  
2 Kaper 300 Mhz, rectifier

4 more sec 5 sec  
10 sec 20 40 +  
2 hours - all work  
OK - strips in  
48 hours in 8/4 OK  
also 48 in the Conc  
8/4 10% use - Ni don't  
seem to flake off or  
penetrate at all

108

Whereas Copper quickly swells  
+ flakes -

I have put discs in solution very  
slow, also almost dropped chips  
in but this does not give bubble  
holes -

I now try them putting in wet



So far the shot nickel feed  
anode is functioning just  
as well as a very porous  
Ni Cathode. 9 1/2 V goes  
12 amp on 6 ohm +

Shale partition -

Notice

Have definitely discovered  
the cause of holes on the  
bridge wall, it seems strange  
in all these years we have

## Notice

never found the reason

If a disc is put in bath after washing & still wet in full of bubble holes when looked at under micro on the rough side they are all along the bridge wall.



Canyon -

They do not show on bright or working side, because solution goes thru bubble & plates & then bridge across -

These holes in the Ni are all seen even when the Nickel is .013 thick ~~thick~~

When Disc is put in bath Dry there is never any holes

## Notice

- 110

Hereafter after washing & final wash by Distilled water stream the Discs must be put in the whirler & dried before putting in Bath -

## Notice -

Look a slip stickel faced, cleaned & 8/4 washed & put in Reg OK Ni solution put Alacation Oil of finger & stirred solution then put the slip in Dry - Awful - full of Holes Bridge Wall seem



Notice  
to 62 bubbles = perfectly  
round - Music side  
OK - Have same  
appearance as  
Reg disc put in Ni  
solution w/zt,  
Its bubbles -

Used Reg Control Copper  
Sulfate & same quantity in  
of electric as is used of  
Sulphuric in Reg & the

This makes very much fewer  
grain in fact 035 thick  
w/ perfect no nubs -

It doesn't give as high efficiency  
~~but~~ say 80 @ 95%

Will try further -

11✓  
Marqin Experiment June 24/20

Made a solution of 50 parts  
of NiSO<sub>4</sub> + 50 parts NiSO<sub>4</sub>  
used Copper anode,  
to see if Nickel affected  
Copper plating - Each  
dip 3 hours at 300 Ma -  
Surface 2"

good soft Copper plated  
out each of the 16 Runs

This apparently shows  
that nickel on the Copper  
put in made a pretreatment  
will not hurt the Copper  
plating solution as  
long as the Cu is  
predominant -

When there is 80 parts NiSO<sub>4</sub>  
+ 20 pts CuSO<sub>4</sub> - in anode  
Copper comes on spongy

## Another Margin Experiment

Made up a Conc Solution of  
3 Crystallized Ni Sulfate, Spec Q  
sh 1300, just acid with acetic acid

Plated a strip -

Plated to 1280 plated strip

1250

1220

1190

1160

1130

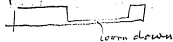
1100

There appears no difference in  
the thickness or quality of the  
plating except perhaps higher  
Spec Q is better for hubs  
& may be shade thicker = In  
practice, should the solution  
go as low as 1100 it would  
produce ok records but  
Sol would probably  
get hot - At about  
density 6 @ 7 amp on  
a disc we could always  
lower general voltage on  
Bath to meet the Emergency

114

Suppose a Crock cracked we  
lost some solution - we  
could patch & dilute with  
water lower the voltage  
& go ahead -

I find on inspection many  
idlers on bath belts are stuck  
& havent turned probably for  
2 or 3 years - Cause  
use of brass or bronze  
shafts on brass idler wheel  
shafts worn thus



Flanges worn thru by  
belt slipping on stopped  
bravemy & flanged way  
out -

There are many bath  
this way & hats of  
records stop & are  
plated one side & lost

This should be put on inspection  
list - Also steel pin used  
Possibly rabbit (hard)  
Bunch used

Dryer baths are coated white  
after washing out - Most  
of it is lead sulphate  
Either comes from loading  
rubber with oxide lead or  
we use crystal with lead  
in or something is lead  
lined - Actually the overflow  
pipe of one bath was  
found plugged with it  
like putty - wash water  
or nitric acid dilute -  
Dougherty says mostly  
lead -  
Notice rubber troughs  
see if lined with it

116

### Reving Orders

1 Repair + substitute new pumps for old  
on the line -

2 = pipe requiring new clamps  
new stronger Stokes rubber  
connections, assembled &  
tested before putting in place

3 40 stand and Bath to brass  
seams - hole cut thru from  
inside skin - called  
top plate - Brass sensor  
overflow -

4 = 40 plate and repairs

5 = We should have one  
large punch cock on big  
pipe over baths to cut off  
liquid in case accident  
+ double tubing below so  
if one goes the other will hold

also only use 1 stage pump  
for jets + 2 stage for filler  
pressures

I have used 4 Ni faced slips  
+ had Deller plates with Ni from  
3 Chrysler Nuboy Sol with slight  
Acetic. I cleaned about 15  
seconds in Electro Cleaner  
+ 10 seconds in Selenium  
of such a strength that  
it goes deep green in one  
minute. The 10 seconds  
puts enough  $\frac{1}{4}$  on to already  
insure perfect stripping

Plated + stripped some  
slips 22 times surfaces  
of slips just as bright +  
shows just as perfect under  
microscope as new. With this  
cycle I haven't the slightest  
doubt but I could go on  
100 or more perhaps  
indefinitely - 4 not electrocuted  
just off - 16 times all OK but one + that was  
just off one spot, that adhered as dead

I found on looking at Working  
Mould discards that only 1 slip  
on Mole was cleaned that  
after soak 2 hours in 20% NaOH.  
Wiped off lots of Condensate  
thru cleaning rags. Etc don't  
reach down in bridge well  
Canyon - not even to bottom  
of shallow grooves where there is  
a high Mole

Notice around where clamped  
its stained bad + soda does not  
remove it even when vigorously  
rubbed - This will not plate  
over + is not cleaned by Electro  
Cleaner. Must be rubbed with  
Vitamin lime or such

I find that in spots on these  
discards is spongy places  
due to dirt films caught from  
bath when Ni 1st set in  
oil + dirt - New Skinner  
will stop this. When  
oil got out of system

S

I find the Rubber (soft) from  
overflow to outlet at Bottom  
of bath is so stretched that  
life is gone & new ones must  
be put in

Think Cord must be wound  
around -



No 1 Ni bath Req Spongy solid  
Ni Anode

No 2 Fed Lucide Nickel

Both worked together

Temp No 1	- 99° Fahr	amp
Temp No 2	96	11.51
		12

170

I got a polished rod machined  
steel  $\frac{1}{8}$ " dia  $\frac{1}{2}$  polished  $\frac{1}{2}$   
left as tool turned it  
Electro cleaned then  
about 5 min in  $\frac{3}{4}$ " -  
1 min strength - Put out on  
window sill - to see rusting

We must protect our Motors from  
Batteries of Electrolyte & also  
Cracked block.

After 15 days = June 28/20

No 5 - 0.009  
0.009 large holes &  
not same area as later screws  
Run 15 days. 6 discs out  
Each 864 Amp hours

Stand 1st	22 @ 20
2	19 @ 20
	17 @ 20
	17 @ 15
	17 @ 13
	16 @ 17
	16 @ 17

over

It went down to 15 I removed  
disc & took out & emptied  
tank. The Anode was originally  
1/16" thick & was not in the  
least attacked except where it  
came out of liquid & this is  
Effect of air oxidizing & dissolving  
by the strong  $ZnH_2SO_4$   
Holes in rubber partition all  
open - found extreme bottom  
the copper pieces locked together  
by having crystals of  $CuSO_4$   
Our solution is too strong  
& must have a rubber tube  
to deliver jet circulation of  
tube down near bottom  
to prevent crystallization  
valve to locate the specific  
gravity to 11.65 or 11.60

This proves feed Anode is  
OK part of the Nickel film  
Eat away thick 50%  
will go in Sol & become  
out in cleaning Copper  
perhaps less

177  
The amount of Copper mud  
extraordinarily fine was about  
2 oz for the 15 days work  
This mud seems to be pure Copper  
& fine a china clay - 177

Made 47 hours plating with slip  
 $CuSO_4$  1170 spec 9,  $2\frac{1}{2}\%$  acetic  
acid + 0.25% when it should  
be 0.43 thick. Film perfect  
no nubs almost perfect just  
Matte, a correction should be  
made as its more than 2"  
surface - its about 3 inches  
thick would make it  
0.033, when it should be  
0.043

We should have doz thermometer  
distributed in 112 Cu bath  
& Watcher read every  
day 3 hours & record  
& better near probably showed  
regularly Water Cooling

## Things to be Inspected (14)

- 1 = Jets stuck up
- 2 " Not properly regulated
3. Belts slack
- 4 Specific Grav of Cu Sol. all anodes
- 5 " " Ni Sol. <sup>single feed</sup>
- 6 Acidity of Ni Sol.
- 7 Clear or Cloudy Sol from filter press, Nickel.
- 8 Ditto Copper
- 9 Leaking joints Set 1 2 3 & 4
- 10 - Electrocleaning Sol if Alkaline
- 11 Lights burning Set 1. 2. 3. 4
- 12 Are jets properly adjusted on Washers -
- 13 Time cleaning [Electro]  
test 6/4 baths with Copper strip.
- 14 Note if men put in disc  
in Electro cleaning bath  
with Current off. Current  
should not be on
- 15 Note if men fail to  
quickly turn when pulling  
belt on disc in 8/4 bath  
it should not stand still  
in this bath for more than 2 or 3 sec

- 16- Note if men do not use  
their Cotton gloves -
- 17- If find Anodes and kept full -
- 18- Note cracks in Rubber  
box showing leak -
- 19- Note if holders for Disc &  
shaft kept clean -
- 20- Note ampours on baths  
in & Cu -
- 21- Note Valts on baths.
- 22- Note if disc dryer runs  
true & shafts don't chatter
- 23- Note if in taking discs  
off holder. that no copper  
or nickel sol has got in &  
no plating - if found note  
the percent out of each lot  
you see taken apart,



24. Note if cloth in the Ni bath is very dirty - If it is so dirty it backs up the sections in a side Compartment notice Evidence that it has overflowed

25 When stripping is being notice say one frozen being stripped & see if instructions followed.

26 - Note if Carefully handled after stripping & in boxes secured so as not to injure in carrying

27 Note if <sup>front</sup> back of Cu + Ni are excessively wet by more than usual

28 Temp of B Ni & B Copper baths in the 3 room & Temp of the general Crook

- 29 Note any dirty places
- 30 Note places they do not keep clean
- 31 = Note sparking on Motors & Dynamos each Dept.
- 32 Note any leak in roof
- 33 Read at nearly same time Valt. & Amps on Dynamos -
- 34 See overflows in bath are adjusted so liquid always strikes center of disc & see if properly secured.
- 35 See that no loose tool screws or other things lay on baths which might fall in baths -

We have June 21 1920

42 printing presses & 74  
Blank presses

About says can crowd in  
20 more printing & 12  
Blank - But must have  
ventilated on in Blank  
press room -

Just finished plating a nickel in  
No 1 Ni Bath. Cast Ni anode &  
square hole skimmer & O. skimmer  
Total 1397 amp hours  
average 11.4 amperes @  $9\frac{1}{2}$   
Volts. Total time 122 hours.  
less waste & nets than the best  
Copper with 500 amp -  
it was a thin record & was  
bowed or rather dished -

Calipers - 084  
16 1/2 amp to 001

The No 2 is still going -  
now 1562

13✓

36 - Note bearings of drive shafts  
& if belts are tight.

37 - Note state of filler cloths when  
removed - amount of mud on

38 - Note if leaks in stuffing  
box of pumps -

39 - Note any vibration of rollers  
on Motors or if not properly  
protected -

40 - Note if men in charge are  
at their posts

41 - When inspecting any break  
down clear up the cause  
of trouble & what was done  
to it & if both shaft were  
running -

42 - Note if idlers are not  
stuck on Bath -

43 - Note Belt hook of OK

44 - Note if overflow is running evenly over whole Edge in bath -

45 - Note if solution is clear in the Skimmer -

46 See if Skimmer in right position -

47 - See if pumps have right speeds -

48. Note if sight feed is working OK & adjusted

49 Notice any spattering of solution around sight jet - it means air is in solution or centrifugal is pumping air -

50. Notice any accumulation of crystals, dirt on floor leaks any where, a pile of liquid, screws & tools lying on bath -

51 = The pipe from overflow  
at bottom gets plugged  
with apparently sulfur  
Lead either from lead in  
the bath rubber or from  
elsewhere in Copper bath  
Inspect for free passage  
Can run  $1/8$ " Nickel wire down  
to a mark-on wire

52 Many thermometers distributed  
thru Ni & Cu baths & read,

1170. CuSO<sub>4</sub> 25 cc active fluid  
Does not plate any better  
than Reg. with 2 1/2% H<sub>2</sub>SO<sub>4</sub>  
& The Resistance is high  
temp. 136° F. - 119 -

Nickel disc in No 2 Ni bath  
Removed - 1741 amp hours  
137 Hours -

Average Amp 12.7 - max  
times 14 - 9 1/2 V all night  
10 V. Perfect plating

Arrested - 1200 amp with full  
a nub of fine grain - Most  
perfect plating ever done  
for surfaces Cu -  
Didn't dish disc -

This was what anode =  
Yellowish June 30<sup>th</sup> & examined  
Shot



Calliper

0.116

face used hundreds of thousands  
Shot anode functions so far  
Perfect -

Thus to 15 amp hour per  
1/1000 - 9 1/2 V 12.7 amp  
137 Hours -



Oh Dear!

Slate goes to pieces  
in Regl Copper solution

It also scales off in  
Nickel Sol. salt runs  
inside cleavages -

ng.

---

Anode Dept. - All day work

Punch discs - 1st Electro cleaning  
removal of Ketchum -  
final wash -

2 = Supply in box in each bldg  
bag + traps over shoulders  
to feed -

3 = Tank in each room to remove  
a bath + wash out + put back  
collection of sludge + small  
pieces -

4 = Good rapid supply for  
removing sludge to  
trough -

5 = Sheet copper  $1/8$  thick to  
replace. Scrap lost + closed  
up - Lake or Excluder in  
factory retained but men  
used in plant if possible



anode.

6 System of history + schedule  
back -

7 1/2 Nickel shot fired,

8 Solid Cu anodes + clock  
Kept - Minimum

9 1/2 Nickel strap anodes  
clock Kept, Minimum

j

# Repair work-

- 1 = Extra baths      minimum
- 2      "      Shimmers      "
- 3      "      Tubing      "
- 4      "      glasses      "
- 5      "      Plates ~~or~~ percolator      "
- 6      "      Standard holders      "
- 7      "      Overflow trough      "
- 8      "      "      Rubber tube      "
- 9      "      "      Servos-      "
- 10      "      Feed Inside Coors      "
- 11      "      Holder Control Spgs      "
- 12      "      Guarding Lugts      "
- 13      "      Belts      "
- 14      "      Belt idlers      "
- 15      "      Corner idler pulleys      "
- 16      "      "      idlers      "
- 17      "      pumps      "
- 18      "      Pump Motors      "
- 19      "      Main shaft pulleys      "
- 20      "      Bracket for holding Jeff. id      "

Penny

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Plating Experiments  
Notebook, N-20-06-07.1**

This notebook was used during June-September 1920 by Edison, Walter N. Archer, John McMullen, and W. J. Taylor. The entries pertain to the plating processes involved in the manufacture of disc records. The early entries by Edison describe proposed experiments on the copper anode using discs composed of working mold discards with thick layers of nickel on them. Following these entries are tabular reports by Archer and Taylor listing the date and time, specific gravity, volts, amps, crock temperature, and the condition of the anode during plating in "Bath 6" from June 7 through July 20. Notes, suggestions, and instructions by Edison are interspersed throughout the tables. These reports are followed by daily reports from "Mac" (John McMullen) describing the percent of plated molds rejected for various reasons (for example, loose nickel or blisters) from July 26 through September 2. A table inserted into the book summarizes the daily results. At the end of the book are several pages of tabular forms without data (not selected). The front cover is labeled "Mc Report 6." The pages are unnumbered, and at least one page has been removed from the book. Approximately 150 pages have been used.

# Book 6

This is same kind of an anode as in Bath No 3 - This is No SIX  
Except the discs are working  
mould discs and have  
thick layer of nickel on  
The Experiment is to see if  
Anode Cu will all be used  
without attacking the nickel

Anode after 3 or 4 discs are  
plated out should be examined



Date	Spec	Volt	Amp	Nick Temp
5:45 PM	1175	9.5	23 1/2	81
6:15	1175	9.5	23 1/2	81
7:45	1170	9.5	24	83
8:45	1170	9.5	24 1/2	83
9:45	1170	9.5	25	82
10:45	1170	9.5	22	82
11:45	1170	9.5	22 1/2	83
am 5				
12-4:55 AM	1170	9.5	23	83
1:45	1170	9.5	23	83
2:45	1170	9.5	23 1/2	82

	6	Specs	Volts	Amps	Crank Temp
	3.45	1170	9 1/2	24	83
	4.45	1170	9 1/2	23	83
24	5.45	1170	9 1/2	24	83
	6.45	1170	9 1/2	24	83
	7.45	1170	9 1/2	22	83
	8.45	1175	9 1/2	22	80
	9.45	1175	9 1/2	23	82
	10.45	1170	9 1/2	22 1/2	84
	11.45	1170	9 1/2	22 1/2	81
30.15	12.45	1175	9 1/2	22	83
	1.45	1175	9 1/2	22 1/2	83
	2.45	1175	9 1/2	22	82
	3.45	1175	9 1/2	23	81
	4.45	1175	9 1/2	21 1/2	82
	5.45	1175	8 1/2	21 x	82
	6.45	1175	9 1/2	21	82
	7.45	1175	9 1/2	21	83
	8.45	1175	9 1/2	21	82
	9.45	1180	9 1/2	21	82
	10.45	1170	9 1/2	21	80
	11.45	1170	9 1/2	21 1/2	82
	12.45	1170	9 1/2	22	83
	1.45	1170	9 1/2	22	83
	2.45	1170	9 1/2	22	83
	3.45	1170	9 1/2	22	81
	4.45	1170	9 1/2	22	82
	5.45	1175	9 1/2	22	81

time	Sp. Ht.	Volts	Grp.	Couch Temp.
6.45	1170	9½	22	81
7.15	1170	9½	22	81
not 7.15 AM				

Bath  
H<sub>2</sub>O 6

Out. First one  
Calliper 069-

						Bath No 6	
						2nd Spec in	Same Anode
June 9	Spec	Volts	Amper	Temp			
11 AM	9	1170	9 1/2	20	80		
10		1175	9 1/2	20	80		
11		1175	9 1/2	21	80		
12		1170	9 1/2	20	82		
1:00		1170	9 1/2	20	82		
2:00		1170	9 1/2	20	80		
3:00		1170	9 1/2	20	80		
4:00		1170	9 1/2	20	83		
5:00		1170	9 1/2	20	83		
6:00		1170	9 1/2	20	83		
7:00		1170	9 1/2	20	81		
8:00		1170	9 1/2	20	80		
9:00		1170	9 1/2	20	80		
10:00		1170	9 1/2	20	80		
11:00		1170	9 1/2	20	82		
12:00		1170	9 1/2	20	82		
June 10							
1:00		1170	9 1/2	20	82		
2:00		1170	9 1/2	20	82		
3:00		1170	9 1/2	20	82		
4:00		1170	9 1/2	21	83		
5:00		1170	9 1/2	20	83		
6:00		1170	9 1/2	21	82		
7:00		1170	9 1/2	21	83		
8:00		1170	9 1/2	20	83		
9:00		1170	9 1/2	20	83		
10:00		1170	9 1/2	20	83		
11:00		1170	9 1/2	20	83		
12:00		1170	9 1/2	20	83		

Bath No 6  
2nd Spec in  
Same Anode

24 hours



Bath No 6-

Circle broken stopped at 2:12 <sup>PM</sup>  
 Afterstrut flooded over screen  
 Started again at 3:30

June 10	Bath	No. 6		
<del>1:00</del>	<del>1170</del>	<del>9 1/2</del>	<del>20</del>	<del>80</del>
1:00	1170	9 1/2	20	80
1:00	1175	9 1/2	20	81
2:00	1175	9 1/2	20	82
1:00	1175	9 1/2	21	81
2:00				
3:30	1175	9 1/2	21	80
4:30	1175	9 1/2	21	80
5:30	1175	9 1/2	21	80
6:30	1175	9 1/2	21	80
7:30	1175	9 1/2	21	80
8:30	1175	9 1/2	21	80
9:30	1170	9 1/2	21	80
10:30	1170	9 1/2	21	80
11:30	1170	9 1/2	21	80
12:30	1170	9 1/2	20	82
1:30	1170	9 1/2	20	83
2:30	1170	9 1/2	20	82
3:30	1170	9 1/2	20	82
4:30	1170	9 1/2	20	80
5:00	1170	9 1/2	20	80
AM				
OUT				

stopped  
 2:12 extra afterstrut  
 flooded

started

86 ft

42"

No 6 2nd Disc same Circle

860 Amp in 4 1/2 hr

Out June 11:5 AM

port June 11:5 am

Cell/ps 68

start June - 11  
9.00 AM

Batch No 6

3rd Disc in  
same mode

Time	Spec	Diff	amp	Temp
9.00	1170	9 1/2	19	80
10.00	1170	9 1/2	18	81
11.00	1170	9 1/2	18	82
12.00	1170	9 1/2	18	82
1.00	1170	9 1/2	18	82
2.00	1170	9 1/2	18	80
3.00	1170	9 1/2	18	80
4.00	1170	9 1/2	18	83
5.00	1170	9 1/2	18	83
6.00	1170	9 1/2	18	82
7.00	1170	9 1/2	18	83
8.00	1170	9 1/2	18	83
9.00	1170	9 1/2	18	83
10.00	1170	9 1/2	18	82
11.00	1170	9 1/2	18	80
12.00	1170	9 1/2	18	80
1.00	1170	9 1/2	18	80
2.00	1170	9 1/2	18	80
3.00	1170	9 1/2	18	80
4.00	1170	9 1/2	18	80
5.00	1170	9 1/2	18	80
6.00	1170	9 1/2	18	80
7.00	1170	9 1/2	18	80
8.00	1170	9 1/2	18	80
9.00	1170	9 1/2	18	80
10.00	1170	9 1/2	18	80
11.00	1170	9 1/2	18	80
12.00	1170	9 1/2	18	80
1.00	1170	9 1/2	18	80
2.00	1170	9 1/2	18	80
3.00	1170	9 1/2	18	80
4.00	1170	9 1/2	18	80
5.00	1170	9 1/2	18	80
6.00	1170	9 1/2	18	80
7.00	1170	9 1/2	18	80
8.00	1170	9 1/2	18	80
9.00	1170	9 1/2	18	80
10.00	1170	9 1/2	18	80
11.00	1170	9 1/2	18	80
12.00	1170	9 1/2	18	80

9 PM  
Starting to  
Crystallize

296

24 145

515

3 dots in  
same circle

Apr. 12	3.3	Volt	Amph	Temp	30
5.00	1170	7-5	19	83	
10.00	1170	9-5	18	83	
11.00	1170	9-5	18	83	18
12.00	1170	7-5	18	83	36
1.00	1170	9-5	18	83	54
2.00	1170	9-5	18	83	72
3.00	1170	9-5	17	83	90
4.00	1170	7-5	13	82	107
5.00	1170	9-5	18	82	124
6.00	1170	9-5	18	80	142
7.00	1170	9-5	18	83	160
8.00	1170	9-5	18	83	178
9.00	1170	9-5	18	83	
10.00	1170	9-5	18	83	
11.00	1170	9-5	18	81	
12.00	1170	9-5	18	85	
1.00	1170	9-5	18	84	
2.00	1170	9-5	18	84	
3.00	1170	9-5	18	82	
4.00	1170	9-5	19	82	
5.00	1170	9-5	19	82	
6-7.00	1170	9-5	18	82	
8.00	1170	9-5	18	82	18
9-11.00					
OUT					OUT

Bath No 6 3 Fine in same Creek

8.56 Camp in 47 hours

at about 18 mph

Out 7.00 AM

Per hour

June -13-

Out:

Beth No 6

4th Dist

not same creek

June

13

AM

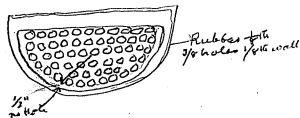
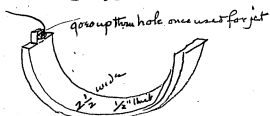
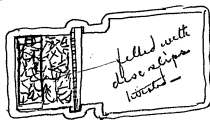
	John Smith	Comp	Temp	not same creek
12.00	1175 9.5	20	81	
1.00	1175 9.5	20	81	20
2.00	1175 9.5	20	81	40
3.00	1175 9.5	20	82	60
4.00	1175 9.5	20	82	80
5.00	1175 9.5	20	82	100
6.00	1175 9.5	20	83	120
7.00	1175 9.5	20	83	140
8.00	1175 9.5	20	83	160
9.00	1175 9.5	20	83	180
10.00	1175 9.5	20		
11.00	1175 9.5	20		
12.00	1175 9.5	20		
1.00	1170 9.5	20	80	260
2.00	1170 9.5	20	81	280
3.00	1170 9.5	20	82	300
4.00	1170 9.5	21	80	321
5.00	1170 9.5	20	80	341
6.00	1170 9.5	20	82	361
7.00	1170 9.5	20	81	381
8.00	broken off			Teeth out

moder broken off support  
bar, taken out at

June - 14

8:00 O'clock AM

# New Basket Anode - 6 Boath



Time 14	5.9	Volt	Amp	Temp	Total Amps
8:40 M	1175-	9 1/2	21	83	
8:40	1175	9 1/4	23	82	23
8:40	1175	9-3	23	82	46
8:40	1175	9.5	22	82	70
8:40	1175	9.5	25	83	95

Flashed with Diethyl

June 18<sup>th</sup> Bath No. 6

AM	Spec	Volts	amps	Temp	Temp
1.40	117.5	9.5	25	80	120
2.40	117.5	9.5	25	80	145
3.40	117.5	9.5	25	80	176
4.40	117.5	9.5	25	80	195
5.40	117.5	9.5	23	80	220
6.40	117.5	9.5	25	80	245
7.40	117.5	9.5	25	80	270
8.40	117.0	9.5	24	83	294
9.40	117.0	9.5	24	83	318
10.40	117.0	9.5	23	83	341
11.40	117.0	9.5	22	81	363
12.40 <sup>pm</sup>	117.0	9.5	22	82	385
1.48	117.0	9.5	22	81	407
2.40	117.0	9.5	22.5	80	429
3.48	117.0	9.5	23	80	452
4.40	117.0	9.5	23	80	475
5.40	117.0	9.5	22 1/2	80	497
6.40	117.0	9.5	22 1/2	80	520
7.40	117.0	9.5	22 1/2	80	541
8.40	117.0	9.5	23	80	564
9.40	117.0	9.5	22 1/2	83	569
10.40	117.0	9.5	22 1/2	83	591
11.40	117.0	9.5	22 1/2	83	614
12.40 <sup>pm</sup>	117.0	9.5	23	80	637
1.40	117.0	9.5	22	80	659
2.40	117.0	9.5	22	80	681

Booth No 6  
first Out

Time	S.E.	Votes	Comp	Temp	Temp
3.40	1170	9.5	22	80	703
4.40	1170	9.5	22	80	725
5.40	1170	9.5	22	80	747
6.40	1170	9.5	22½	80	769
7.40	1170	9.5	23	80	792
8.40	1170	9.5	23	83	815
9.46	1170	9.5	23	83	838
10.40	1170	9.5	23	80	861
<del>11.40</del>	1170	9.5			

Out  
88 hours

June - 16 - AM

22½ amp  
Bo. hours

Bath #46

2nd Disc

same as usual

Time	Spk	Wt	Comp	Temp	Total
2:30	1170	9 1/2	21	82	
3:30	1170	9 1/2	21 1/2	82	21
4:30	1170	9 1/2	22 1/2	82	44
5:30	1170	9-5	22	82	66
6:30	1170	9-5	21	82	87
7:30	1170	9-5	21	82	108
8:30	1170	9-5	21	82	129
9:30	1170	9-5	21	83	150
10:30	1170	9-5	21	83	171
11:30	1170	9-5	21	80	192
12:30	1170	9-5	20	80	212
Time	17				
1:30	1170	9-5	21	80	233
2:30	1170	9-5	21	80	254
3:30	1170	9-5	21	80	275
4:30	1170	9-5	21	80	296
5:30	1170	9-5	21	82	317
6:30	1170	9-5	22	83	339
7:30	1170	9-5	21	81	360
8:30	1170	9-5	21	83	381
9:30	1170	9-5	21	83	402
10:30	1175	9-5	21	83	423
11:30	1175	9-5	22	83	445
12:30	1175	9-5	22	81	467
1:30	1175	9-5			

Current off  
" on



Beth 746

June	S. In	Colts	Comp	Comp	Total
1.7 P.M.					
1.30	1175	9-5	21	81	488
2.30	1175	9-5	20	82	508
3.30	1175	9-5	20	82	528
4.30	1175	9-5	20	82	548
5.30	1170	9-5	20	82	568
6.30	1170	9-5	20	82	588
7.30	1175	9-5	19	82	607
8.30	1175	9-5	20	82	627
9.30	1175	9-5	20	82	647
10.30	1175	9-5	20	82	667
11.30	1175	9-5	20	82	687
12.30	1175	9-5	20	80	707
June 18					
1.30	1175	9-5	20	80	727
2.30	1175	9-5	20	80	747
3.30	1175	9-5	20	82	767
4.30	1175	9-5	20	80	787
5.30	1175	9-5	20	80	807
6.30	1175	9-5	20	80	827
7.30	1175	9-5	20	82	847
8.30	1175	9-5	20	83	867
9.30					
20% Comp					42 hours
					Out 40

This has the skimmer on  
jet used

skimmer -  
also jet

722 anode

Beth n<sup>o</sup> 6

13 Hot Disc  
some anode

June 18

AM	Sta	Alt	Comp	Temp	Total
10:30	1175	9 1/2	18	83	1
11:30	1175	9 1/2	17	83	17
12:30	1175	9 1/2	20	83	37
1:30	1175	9 1/2	19	83	56
2:30	1175	9 1/2	19	83	75
3:30	1175	9 1/2	19	84	94
4:30	1175	9 1/2	18 1/2	84	112
5:30	1175	9 1/2	18 1/2	84	131
6:30	1175	9 1/2	18	83	149
7:30	1175	9 1/2	18	83	167
8:30	1175	9 1/2	18	83	185
9:30	1175	9 1/2	18	83	203
10:30	1175	9 1/2	18	83	221
11:30	1175	9 1/2	18	80	239
12:30	1175	9 1/2	18	80	257
June 19					
1:30	1175	9 1/2	18	80	275
2:30	1175	9 1/2	19	80	294
3:30	1175	9 1/2	18	80	312
4:30	1175	9 1/2	18	80	330
5:30	1175	9 1/2	18	80	348
6:30	1175	9 1/2	18	80	366
7:30	1175	9 1/2	18	81	384
8:30	1175	9 1/2	18	82	402
22					

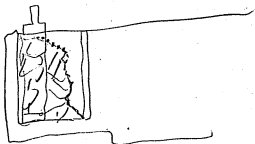
Over

Bath No 6

JUNE 19  
AM

	Lev	Volts	Comp	Temp	Total
9:30	1175	9 1/2	18	83	420
10:30	1175	9 1/2	18	83	438
11:30	1175	9 1/2	18	83	456
12:30	1175	9 1/2	18	83	474
1-30 P.M.	1175	9-5	18	83	492
2:30	1175	9-5	18	83	510
3:30	1175	9-5	18	83	528
4:30	1175	9-5	18	83	546
5:30	1175	9-5	18	83	564
6:30	1175	9-5	18	83	582
7:30	1175	9-5	18	83	600
8:30	1175	9-5	18	83	618
9:30	1175	9-5	17	83	635
10:30	1175	9-5	17 1/2	83	652
11:30	1175	9-5	17	83	669
AM JUN 20					
12:30	1175	9-5	17	83	686
1:30	1175	9-5	17	80	703
2:30	1175	9-5	17	80	720
3:30	1175	9-5	17	80	737
4:30	1175	9-5	17	80	754
5:30	1175	9-5	17	81	771
6:30	1175	9-5	17	82	788
7:30	1175	9-5	17 1/2	82	806

This is 3rd desc taken and  
End every time



filled up

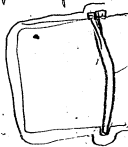


Plate  
possession  
Alkali

Beet  
locals  
Dorealain  
or Kiebler spread  
gets hot from high  
amperage & beads  
almost by  
fired

Bath No 6

Time	Volts	Amp	Temp	Total
8:30 AM 88	1175	9.5	18	82
9:30	1175	9.5	18	83
10:30	1175	9.5	18	83
11:00	1175	9.5	18	83

Out June 20  
11:00 AM

48 1/2 hours  
18 Amps per hour

Time	Volts	Amp	Temp	Total
4:45	1175	9.5	20	83
5:45	1175	9.5	20	83
6:45	1175	9.5	21	83
7:45	1175	9.5	22	83
8:45	1175	9.5	22	82
9:45	1175	9.5	22	82
10:45	1175	9.5	21	82
11:45	1175	9.5	21	82

New one in —  
No jet skimmer used — anode  
Complaint filled up — jet feeds  
anode dist. not much of a stream

over

Bath 946  
43 in

JUNE						
21	AM	SLW	Rolls	Cmp	Cmp	Total
1245	1175	9 1/2	21	83	170	
145	1175	9 1/2	21	82	191	
245	1180	9 1/2	21	83	212	
345	1180	9 1/2	21	82	233	
445	1180	9 1/2	21	82	254	
545	1190	9 1/2	21	82	275	
645	1180	9 1/2	21	84	296	
745	1180	9 1/2	20	82	316	
845	1180	9 1/2	20	82	336	
945	1180	9 1/2	20	83	356	
1045	1175	9 1/2	20	83	376	
1145	1175	9 1/2	20	83	396	
1245	1175	9 1/2	20	83	416	
145	1175	9 1/2	21	83	437	
245	1175	9 1/2	20	83	457	
345	1175	9 1/2	20	83	478	
445	1175	9 1/2	21	83	498	
545	1175	9 1/2	21	83	519	
645	1175	9 1/2	21	83	540	
745	1175	9 1/2	21	83	561	
845	1175	9 1/2	20 1/2	83	581	
945	1175	9 1/2	20 1/2	83	602	
1045	1175	9 1/2	20	83	622	
1145	1175	9 1/2	20	83	642	

Bath No 6.

same Arrive

JUNE  
20

AM

Sec	Orth	Comp	Temp	Total
1175	9.5	20 1/2	83	66 1/2
1175	9.5	20 1/2	83	68 1/2
1175	9.5	21	83	70 1/2
1175	9.5	21 1/2	83	72 1/2
1175	9.5	21 1/2	83	74 1/2
1175	9.5	21 1/2	83	76 1/2
1175	9.5	20	84	78 1/2
1175	9.5	20	84	80 1/2
1175	9.5	20	83	82 1/2
1175	9 1/2	20	83	84 1/2
1175	9 1/2	20	83	86 1/2
1175	9 1/2	20	83	88 1/2

Comp

Out

42 hours

20 1/2 1/2 Per hour

Net Beth 5 1/2 in  
some creek

JUNE	Spd	Vol	Comp	Temp	Notes
21					
10:00	1175	9 1/2	20	83	
11:00	1175	9 1/2	19	83	19
12:00	1175	9 1/2	19	83	38
AM June 23					
1:00	1175	9 1/2	19	80	54
2:00	1175	9 1/2	19	80	46
3:00	1175	9 1/2	19	80	95
4:00	1175	9 1/2	19	80	114
5:00	1175	9 1/2	19	80	133
6:00	1175	9 1/2	19	80	152
7:00	1175	9 1/2	19	80	171
8:00	1175	9 1/2	19	80	190
9:00	1175	9 1/2	19	80	209
10:00	1175	9-5	19	80	228
11:00	1175	9-5	19	88	247
12:00	1175	9-5	19	83	266
1:00	1175	9-5	19	83	285
2:00	1175	9-5	20	83	305
3:00	1175	9-5	20	83	325
4:00	1175	9-5	20	83	345
5:00	1175	9-5	20	83	365
6:00	1175	9-5	20	83	385
7:00	1175	9-5	20	83	405
8:00	1175	9-5	20	83	425
9:00	1170	9-5	20	83	445

over

256 Bath Chamber filled up  
 Amp. dropped from 20 to 18 Amp  
 when filled went up to 20 temp

256 Bath 5'2" in

JUNE 23	PM	SLN	Volts	Amp	Temp
10.00	1170	9 1/4	20	84	465
11.00	1170	9 1/2	20	84	485
12.00	1170	9 1/2	20	84	505
AM June 24					
1.00	1170	9 1/2	20	84	525
2.00	1170	9 1/2	21	80	546
3.00	1170	9 1/2	21	80	567
4.00	1170	9 1/2	22	80	587
5.00	1170	9 1/2	21	80	610
6.00	1170	9 1/2	21	80	631
7.00	1170	9 1/2	22	80	653
8.00	1170	9 1/2	20	82	673
9.00	1170	9 1/2	20	83	693
10.00	1170	9 1/2	20	83	713 Sopped Water
11.00	1170	9 1/2	20	83	733 at 12 o'clock
12.00	1170	9 1/2	20	83	753 to make Room for Jacket moved
start June 25 = PM					
12.00	1170	9 1/2	18	81	771
1.00	1170	9 1/2	18	82	789
2.00	1170	9 1/2	18	83	807
3.00	1170	9 1/2	18	83	825
4.00	1170	9 1/2	18	83	843
5.00	1170	9 1/2	19	81	862
6.00	1170	9 1/2	19	81	881 Out

256 Bath Out June 26 6.00 AM

881 Amp Sign 44 hours about  
 20 Amp Return

In June 22 taken out and  
 put back again

Out June 26

6.00 AM



Bath No 6 *ch. line*  
*same much*

June 26		Ln	Orth	Comp	Temp	Total
10.00	1170	9-5	18	80		
11.00	1170	9-5	18 1/2	83		18-5
12.00	1170	9-5	19 1/2	80		38
1.00 PM	1170	9-5	19 1/2	80		57
2.00	1170	9-5	20	80		77
3.00	1170	9-5	20 1/2	83		98
4.00	1170	9-5	20 1/2	83		118
5.00	1170	9-5	20 1/2	80		139
6.00	1170	9-5	20	80		159
7.00	1170	9-5	20	83		179
8.00	1170	9-5	20	83		199
9.00	1170	9-5	20	83		219
10.00	1170	9-5	20	83		239
11.00	1170	9-5	20	83		259
12.00	1170	9-5	20			279
AM June 24						
1.00	1170	9-5	20	81		299
2.00	1170	9-5	20	80		319
3.00	1170	9-5	20	81		339
4.00	1170	9-5	20	81		359
5.00	1170	9-5	20	81		379
6.00	1170	9-5	20	81		399
7.00	1170	9-5	19	81		418
8.00	1170	9-5	18	81		438

OK

418

Bath 766 6<sup>th</sup> Dec<sup>in</sup>

Time	Shv	Bath	Comp	Comp	Met
27 AM					
9:00	1170	9-5	20	83	456
10:00	1170	9-5	20	83	476
11:00	1170	9-5	20	83	496
12:00	1170	9-5	20	83	516
1:00	1170	9-5	20	83	536
2:00	1170	9-5	18	83	554
3:00	1170	9-5	18	83	572
4:00	1170	9-5	18	83	590
5:00	1170	9-5	18	83	608
6:00	1170	9-5	18	83	626
7:00	1170	9-5	18	83	644
8:00	1170	9-5	18	83	662
9:00	1170	9-5	18	81	680
10:00	1170	9-5	18	81	698
11:00	1170	9-5	18 1/2	81	716
12:00	1170	9-5	18 1/2	80	735
AM June 28					
1:00	1170	9-5	20	80	755
2:00	1170	9-5	20	80	775
3:00	1170	9-5	18	81	793
4:00	1170	9-5	18	81	811
5:00	1170	9-5	18	82	829
6:00	1170	9-5	18	81	847
7:00	1170	9-5	18	82	865
8:00	1170	9-5	17	82	882

Bath 766 6<sup>th</sup> Dec Out  
June-28-8:00

882 Comp in 46 hours  
about 19 Comp in hour

Out

# Booth 556 7th Lincoln

June 28

	Start	End	Temp	Temp	Alt
10:30	1170	9-5	17	82	17
11:00	1170	9-5	17	83	34
12:00	1170	9-5	17	83	34
1:00	1175	9-5	16	80	50
2 "	1175	9-5	16	83	66
3 "	1175	9-5	16	81	82
4 "	1170	9-5	17	82	99
5 "	1165	9-5	18	78	117
6 "	1165	9-5	18	80	135
7 "	1165	9-5	18-5	80	153
8 "	1165	9-5	18-5	80	171
9 "	1165	7-5	16	80	187
10 "	1165	9-5	16	80	203
11 "	1165	9-5	16	80	219
12 "	1165	9-5	16	80	235
4M	June 29				
1:00	1165	9-5	16	81	251
2:00	1165	9-5	16	81	267
3:00	1165	9-5	16	82	283
4:00	1165	9-5	16	82	299
5:00	1165	9-5	16	81	315
6:00	1165	9-5	16	81	331
7:00	1165	9-5	16	82	347
8:00	1165	9-5	16	82	363
9:00	1165	9-5	16.5	87	379
10:00	1165	9-5	16.5	86	396

Booth 556 7th Lincoln

#6 Bath

#7 Leise

June 29-30

Volts	Sp. gr.	Volts	Amp.	Temp.	Total
11:30 AM	1165	10.	17	90	413
12	1165	10.	17	86	430
1 PM	1165	10.	17	90	447
2 "	1165	10.	17	90	461
3 "	1165	10.	17	90	478
4 "	1165	10	17	88	495
5 "	1165	10	17	87	512
6 "	1165	10	17	85	529
7 "	1165	10	17	85	546
8	1165	10	17.5	85	563
9	1165	10	17.5	85	581
10	1165	10	17.5	85	598
11	1165	10	17.5	85	616
12:00	1165	10	17	83	633
AM	June 30				
1:00	1165	10	17	82	650
2:00	1165	10	17	82	667
3:00	1165	10	17	82	684
4:00	1165	10	17	81	701
5:00	1165	10	17	81	718
6:00	1165	10	17 1/2	81	735
7:00	1165	10	17 1/2	81	753
8:00	1165	10	17	81	770
9:00 AM	1165	10	17	80	787
10:00	1165	10	17	82	804

$$52 \overline{) 869} \begin{array}{r} 16 \\ 328 \\ \hline 370 \\ 364 \\ \hline 6 \end{array}$$

(16.7

# 6 Bath #7 disc.  
also, scrap and  
Start June 28, 20. - 10.30 AM.  
Finish " 30.20. - 2. PM.  
Total Amps 869  
" hours 52  
Average Amps 16.7

# 6 Bath

June 30, 20.

Rate	Sp. Rev	Volta	Amps	Temp	Total	8.00
11 AM	1165	10	16.5	83	820	
12 -	1165	10	16.5	80	837	
1 PM	1165	10	16.5	85	853	
2 -	1165	10	16	82	869	

# 7 disc

Act

#6 Bath

Start June 30, 20.

#8 Disc.

Scrap rise, and

Wt	Sp. Den	Volts	Amper	Consp	Total
3 PM	1165	10	14.5	81	
4	1165	10	14.5	80	15
5	1165	10	15	80	30
6	1165	10	15	80	45
7	1165	10	15	80	60
8	1165	10	15	80	75
9	1165	10	15	80	90
10	1165	10	14.5	80	104
11	1165	10	14.5	80	119
12	1165	10	14.5	80	133
A.M.	July 1	20.			
0.0	1165	10	12.5	80	148
2.00	1165	10	14.5	80	162
3.00	1165	10	14.5	83	177
4.00	1165	10	15	83	192
5.00	1165	10	15	83	207
6.00	1165	10	15	83	222
7.00	1165	10	16	85	238
8.00	1165	10	17	85	255
9.00	1165	10	17	85	272
10	1165	10	17	85	289
11	1165	10	16	83	305
12	1165	10	17	83	322
1	1165	10	16.5	85	338
2	1165	10	16.5	85	355



Reg strap - feed wrap -

Solid rubber holes drilled  
Bent to left forming an  
Arch

#6 Belt 1st Run in

JULY 3, 30	Sh	Volts	Amps	Temp	Total
PM					
11:00	1165	9-5	14.5	86	
12:00	1165	9-5	14.5	80	14
AM	JULY 4th				
1:00	1165	9-5	14.5	80	29
2:00	1165	9-5	14.5	86	43
3:00	1165	9-5	14.5	83	58
4:00	1165	9-5	15	83	73
5:00	1165	9-5	15	83	88
6:00	1165	9-5	15	83	103
7:00	1165	9-5	16	83	117
8:00	1165	9-5	14.5	84	133
9	1165	9-5	16	84	149
10	1165	9-5	16	84	165
11	1165	9-5	16	82	181
12:00	1165	9-5	15	82	196
PM	1165	9-5	16	82	212
1:00	1165	9-5	15	84	227
2:00	1165	9-5	15	83	242
3	1165	9-5	15	83	257
4	1165	9-5	14.5	83	271
5	1165	9-5	14.5	82	285
6	1165	9-5	14.5	82	299
7	1165	9-5	14.5	81	314
8	1165	9-5	14.5	81	328
9	1165	9-5	14.5	81	342
11	1165	9-5	14.5	81	342

Stopped for 10  
mins. had to  
change belt

not a rubber



# W 6 Bath 1st Lisc

JULY

PM

11.00

11.00

12.00

AM

1.00

2.00

3.00

4.00

5.00

6.00

7.00

8.00

9.00

10.00

11.00

12.00

1.00

2.00

3.00

4.00

5.00

6.00

7.00

8.00

9.00

10.00

Slw

1165

9-5

14-5

81

357

1165

9-5

14-5

81

371

1165

9-5

14-5

81

386

1165

9-5

14-5

81

400

1165

9-5

14

81

414

1165

9-5

14

81

428

Volta

1165

9-5

14-5

81

386

1165

9-5

14

81

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1165

9-5

14

81

414

1165

9-5

14

81

428

1165

9-5

14

81

456

1165

9-5

14

81

470

Comp

1165

9-5

14-5

81

386

1165

9-5

14

81

400

1165

9-5

14

81

414

1165

9-5

14

81

428

1165

9-5

14

81

456

1165

9-5

14

81

470

Temp

1165

9-5

14-5

81

386

1165

9-5

14

81

400

1165

9-5

14

81

414

1165

9-5

14

81

428

1165

9-5

14

81

456

1165

9-5

14

81

470

Total

1165

9-5

14-5

81

386

1165

9-5

14

81

400

1165

9-5

14

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414

1165

9-5

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not a note on

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Outside Caliper = .055  
Inside " = .063

52) 758 (14.5  
 $\begin{array}{r} 52 \times 14 = 728 \\ \hline 30 \\ \hline 758 \end{array}$

Rin total to 750 Amps.  
 #6 Bath #1 disc.  
 After cleaning tanks free from  
 grease and oil.  
 Start July 3, 20. 11.P.M.  
 Finish " 5.20. 3.P.M.  
 Total Amps. 758  
 - hours 52  
 Average Amp. 14.5

No 6 Bath 1st Disc

July 5	Spr	Watts	Amps	Temp	Total
7:00	1165	9-5	15	81	691
12:00	1165	9-5	15	81	712
1:00	July 6				
1:00	1165	9-5	15	81	727
2:00	1165	9-5	15	81	742
3:00	1165	9-5	14	81	56
					52 hrs 758

Cleaned up .041  
 Original .055-.063

Don't in "edge" was  
wounded off.

Use. number 1 1/2 R.P.M.

Stammer taken out at 9<sup>30</sup><sub>AM</sub>  
July 7, 20.

Added 500 general bath dope to  
plating solution 11<sup>30</sup><sub>AM</sub> July 7.

Bath, No 6 2. disc in

July 6th

PM	Spec.	Dolls	amp	Temp	Total
3-45	1165	9-5	14	80	
4-45	1165	9-5	14	83	14
5-45	1165	9-5	14	83	28
6-45	1165	9-5	15	84	43
7-45	1165	9-5	15	84	58
8-45	1165	9-5	14-5	84	72
9-45	1165	9-5	14-5	84	87
10-45	1165	9-5	15	84	102
11-45	1165	9-5	14-5	84	116
AM	July 7				
12-25	1165	9-5	14-5	84	131
1-45	1165	9-5	14-5	84	145
2-45	1165	9-5	14-5	84	160
3-45	1165	9-5	14-5	84	174
4-45	1165	9-5	14-5	84	189
5-45	1165	9-5	14-5	84	203
6-45	1165	9-5	14-5	84	218
7-45	1165	9-5	14-5	84	232
8-45	1165	9-5	14-5	85	247
9-45	1165	9-5	14-5	85	262
10-45	1165	9-5	14-5	85	277
11-45	1165	9-5	14	83	291
12-45	1165	9-5	14	82	305
1-45 PM	1165	9-5	14	83	319
					333

$$32 \overline{) 459} \quad 14.3$$

$$\begin{array}{r} 32 \times 14 = 448 \\ 459 - 448 = 11 \\ 110 \end{array}$$

# #6 Bath

2<sup>nd</sup> disc in

July 7	Sp. No.	Water	Temp	Total
2:45	1185	9.5	14	83
3:45	1165	9.5	14	84
4:45	1165	9.5	14	85
5:45	1165	9.5	14	85
6:45	1165	9.5	14	84
7:45	1165	9.5	14	83
8:45	1165	9.5	14	83
9:45	1165	9.5	14	82
10:45	1165	9.5	14	82

32 hrs

Taken out to make  
room for #1 mi plate  
disc of July 7, 20.

Revolved 2 minutes in bath.  
 Put in his bath dry.  
 Ni plated disc. from #1 Bath  
 Run to local amp house, then give  
 to Mr Edison to see if he can plate  
 it if possible.  
 no shinner in bath.

# #6 Bath

3rd disc. in  
 in plated disc from  
 #1 Bath

Started July 7, 20 - 11 <sup>th</sup>					Total
Date	Sp. No.	Voltage	Amp	Temp	
11 <sup>th</sup> PM	1165	9.5	14	82	
12 <sup>th</sup> PM	1165	9.5	14	82	14
1 AM July 8					
7:10	1165	9.5	14	82	28
7:10	1165	9.5	13 $\frac{1}{2}$	82	41
7:10	1165	9.5	13 $\frac{1}{2}$	82	55
7:10	1165	9.5	13	82	68
7:10	1165	9.5	13 $\frac{1}{2}$	82	82
7:10	1165	9.5	13	82	95
7:10	1165	9.5	13	82	108
7:10	1165	9.5	13	82	121
7:10	1165	9.5	13	80	134
7:10	1165	9.5	13	80	147
7:10	1165	9.5	13.5	82	160
7:10	1165	9.5	13.5	82	174
7:10	1165	9.5	13	80	187
7:10	1165	9.5	13	80	200
7:10	1165	9.5	13	80	213
7:10	1165	9.5	13	80	226
7:10	1165	9.5	13	80	239
7:10	1165	9.5	13	81	252
7:10	1165	9.5	13	80	265
7:10	1165	9.5	13	80	278
7:10	1165	9.5	13	80	291
7:10	1165	9.5	13	80	304

Added 1000 gms bath dope to  
copper plate sol. at 11 A.M. July 9

$$41 \overline{) 540} \begin{matrix} 13.2 \\ 41 \times 2 \\ 130 \\ \hline 120 \\ \hline 100 \end{matrix}$$

Start July 7, 20. - 11.44  
Finish " 9, " - 3.30 PM  
Total Amps 540  
" hours 41  
Average " 13.2

6th Bath 9th day in  
re-plated since from 6th 12

July & PM	Volts	Volts	Amps	Amps	Total
11:10	11.65	9.5	12.2	80	316
12:10	11.65	9.5	12.2	80	329
1:10	11.65	9.5	12.2	80	341
2:10	11.65	9.5	13	80	354
3:10	11.65	9.5	13	80	367
4:10	11.65	9.5	13	80	380
5:10	11.65	9.5	13	80	393
6:10	11.65	9.5	13.5	80	407
7:10	11.65	9.5	13.5	80	420
8:10	11.65	9.5	13	80	433
9:10	11.65	9.5	13.5	78	447
10:10	11.65	9.5	14	79	461
11:10	11.70	9.5	14	80	475
12:10	11.65	9.5	14.5	80	489
1:10	11.65	9.5	14.5	82	503
2:10	11.65	9.5	14.5	81	518
3:10	11.65	9.5	14.5	81	533
4:30	11.65	9.5	14.5	81	540
Total 41 hrs					

Added anode  
scraps

Ant

Copper disc. 8-4 Female  
 Run 2 minutes in bath no current  
 then run to 40 Amp hrs.

One nickel washed well.  
 rinsed with distilled water  
 close switch before putting in  
 then put in and put belt on as  
 quick as possible  
 Run to 600 Amp hours.

# #6 Bath Copper Plate

Time	Volts	Amps	Temp	Total
July 9 20 11:15 PM	11.65	9.5	13.	80
12 11:15	11.65	9.5	13	80
1 11:15	11.65	9.5	13.5	80
2 11:15	11.65	9.5	13.5	80
3 11:15	11.65	9.5	13.5	80
4 11:15	11.65	9.5	13.5	80
5 11:15	11.65	9.5	13.5	80
6 11:15	11.65	9.5	13.5	80
7 11:15	11.65	9.5	13.5	80
8 11:15	11.65	9.5	13.5	80
9 11:15	11.65	9.5	13.5	80
10 11:15	11.65	9.5	13.5	80
11 11:15	11.65	9.5	13.5	80
12 11:15	11.65	9.5	13.5	80
1 PM	11.65	9.5	13.5	80
2 11:15	11.65	9.5	13.5	80
3 11:15	11.65	9.5	13.5	80
4 11:15	11.65	9.5	13.5	80
5 11:15	11.65	9.5	13.5	80
6 11:15	11.65	9.5	13.5	80
7 11:15	11.65	9.5	13.5	80
8 11:15	11.65	9.5	13.5	80
9 11:15	11.65	9.5	13.5	80
10 11:15	11.65	9.5	13.5	80

Take out  
 when 600 Amp  
 hours and  
 wash & put  
 on rack





No 2 Nickel Bath run for  
2 minutes - before Current put on  
192 Amp

No 6 Nickel taken from rack  
dry then washed it with  
high-purity water then rinsed  
with distilled water and  
put in Bath wet with  
Current on

## Bath No 6

July	Time	Temp	Volts	Amps	Notes
11	PM				
10:30	116.5	9.5	14	81	14
11:30	116.5	9.5	14	81	25
12:30	116.5	9.5	14	81	42
1:30	116.5	9.5	14	81	59
2:30	116.5	9.5	14	81	76
3:30	116.5	9.5	14	81	92
4:30	116.5	9.5	14	81	108
5:30	116.5	9.5	14	81	125
6:30	116.5	9.5	14	81	141
7:30	116.5	9.5	14	81	158
8:30	116.5	9.5	14	81	176
9:30	116.5	9.5	14	81	191
10:30	116.5	9.5	14	81	206
11:30	116.5	9.5	14	81	222
12:30	116.5	9.5	14	81	237
1:30	116.5	9.5	14	81	252
2:30	116.5	9.5	14	81	268
3:30	116.5	9.5	14	81	284
4:30	116.5	9.5	14	81	299
5:30	116.5	9.5	14	81	315
6:30	116.5	9.5	14	81	330

# #26 Bath.

Time	Sp. op	Volt	Amp	Temp	Total
10:30	116.5	9.5	15.5	83	345
11:30	116.5	9.5	15.5	83	361
12:30	116.5	9.5	15.5	83	1376
1:30	116.5	9.5	15.5	81	372
2:30	116.5	9.5	15.5	81	414
3:30	116.5	9.5	15.5	81	423
4:30	116.5	9.5	15.5	81	438
5:30	116.5	9.5	15.5	81	454
6:30	116.5	9.5	15.5	81	469
7:30	116.5	9.5	14.5	82	484
8:30	116.5	9.5	14.5	82	498
9:30	116.5	9.5	15	82	513
10:30	116.5	9.5	14.5	82	528
11:30	116.5	9.5	15	83	543
12:30	116.5	9.5	15	83	558
1:30	116.5	9.5	15.5	85	573
2:30	116.5	9.5	15.5	85	589
3:30	116.5	9.5	14.5	84	603
4:30	116.5	9.5	15	85	618
5:30	116.5	9.5	15	80	633
6:30	116.5	9.5	15	80	648
7:30	116.5	9.5	14.5	80	663
8:30	116.5	9.5	14.5	85	677
9:30	116.5	9.5	14.5	84	692

$$52 \overline{) 749} \quad (14.4$$

$$\begin{array}{r} 52 \times \\ \underline{228} \\ 208 \\ \underline{210} \end{array}$$

Start  
Finish

Total Amps = 749

" hours = 52

Average Amps 14.4

# # 6 Bath

Time	Temp	Volts	Amps	Temp	Total	
July 3 10:30	116.5	9.5	14.5	83	706	
11:30	116.5	9.5	14.5	83	721	
12:30	116.5	9.5	14	83	735	
1:30	July 116.5	14 9.5	14	83	749	Out

Put in dry in Bath.  
 107 Amp. in bath, 2 min. revolved  
 then current, washed comm. in  
 water in whirler, rinse distilled water

Put in wet in Copper  
 full current on.  
 Disc. dripping with water.

#6 Bath

Started July 14 @ 12<sup>30</sup> noon.

Time	Sp. Gr.	Volts	Imps	Imps	Steel
12 <sup>30</sup>	1165	9.5	13.5	80	
1.30	1165	9.5	13.5	80	27
2.30	1165	9.5	14	85	41
3.30	1165	9.5	14.5	87	55
4.30	1165	9.5	14.5	85	70
5.30	1165	9.5	14	85	84
6.30	1165	9.5	14	85	98
7.30	1165	9.5	14.5	85	112
8.30	1165	9.5	14.5	85	127
9.30	1165	9.5	14.5	85	141
10.30	1165	9.5	14.5	83	156
11.30	1165	9.5	14.5	83	170
12.30	1165	9.5	14.5	83	185
AM	July	15	20		
1.30	1165	9.5	14.5	83	199
2.30	1165	9.5	14.5	83	214
3.30	1165	9.5	14.5	83	228
4.30	1165	9.5	14.5	81	243
5.30	1165	9.5	14.5	81	257
6.30	1165	9.5	14.5	81	271
7.30	1165	9.5	14.5	81	285
8.30	1165	9.5	14.5	81	300
9.30	1175	9.5	14.5	81	314
10.30	1165	9.5	15	81	329
11.30	1165	9.5	15	80	344

Transferred from  
 #1 in Bath  
 July 15<sup>20</sup>.

# # 6 Bath

July 18, 20	Volts	Amps	Temp	Total	394
12:30	116.5	9.5	15	80	359
1:30	116.5	9.5	15	80	374
2:30	116.5	9.5	15	80	389
3:30	116.5	9.5	14.5	80	404
4:30	116.5	9.5	14.5	80	419
5:30	116.5	9.5	15	80	434
6:30	116.5	9.5	15	83	449
7:30	116.5	9.5	15.5	92	464
8:30	116.5	9.5	17	92	481
9:30	116.5	9.5	17	92	498
10:30	116.5	9.5	17.5	92	515
11:30	116.5	9.5	17.5	92	533
12:30	116.5	9.5	17.5	92	550
July 16, 20					
1:30	116.5	9.5	17	90	567
2:30	116.5	9.5	17	78	584
3:30	116.5	9.5	17	72	601
4:30	116.5	9.5	17	72	618
5:30	116.5	9.5	16.5	72	635
6:30	116.5	9.5	16.5	72	652
7:30	116.5	9.5	16.5	72	668
8:30	116.5	9.5	16	72	684
9:30	1170	9.5	16	87	700
10:30	116.5	9.5	17	90	717
11:30	116.5	9.5	17	91	734

Transferred from  
# 120 Bath  
July 18, 20  
107 amps.

$$\begin{array}{r}
 49 \overline{) 767} \text{ @ } 15.6 \\
 \underline{275} \\
 292 \\
 \underline{294} \\
 26
 \end{array}$$

Total Amps = 767  
 " hours = 49  
 Average Amps = 15.6

#6 Both

Line	Sp. Gr.	Wt/Lb	Amps	Temp	Total
1230	1165	8.5	165	98	750
130	1165	9	17	89	79
					<u>829</u>

Eggs for hatching trees  
in fact female

Considerably rounded edge line  
put in dry  
Revolve 2 minutes, then full  
current on  
Ran for .05 Amps in bath  
Showed blisters after in plate  
1 hr 30 min.

Put in wet. Copper bath  
2 Amps for 2 min, then  
full current on

## #6 Bath

Started July, 16, 20 @

11-PM

Time	Sp. No.	Pot.	Temp.	Current	Total
11 PM	1165	9.5	14.5	89	
12-	1165	9.5	16.	89	16
July 17, 20.					
1 PM	1165	9.5	16.5	90	32
2-	1165	9.5	17.5	90	50
3-	1165	9.5	17.5	90	67
4-	1165	9.5	17.5	90	85
5-	1165	9.5	17.5	90	102
6-	1165	9.5	17.5	90	120
7-	1165	9.5	17.	90	137
8-	1165	9.5	17.	93	154
9-	1165	9.5	17.	93	171
10-	1165	9.5	16.	93	187
11-	1165	9.5	16	93	203
12-	1165	9.5	17	90	220
1-	1170	9.5	15	90	235
2-	1170	9.5	16	95	251
3-	1170	9.5	16	95	267
4-	1170	9.5	16	95	283
5-	1170	9.5	16.5	95	299
6-	1170	9.5	16.5	93	316
7-	1170	9.5	16.5	90	332
8-	1170	9.5	16.5	90	349
9-	1170	9.5	16	90	365
10-	1170	9.5	16	90	381

Transferred from  
#1. No blisters  
2 Blisters  
on disc.  
100 amp in plate  
Trees started

47/775 (16.4)  
 305  
 288  
 16.4

Total Amps 775  
 " hours 47  
 Average Amps 16.4

# # 6 Bath

Time	Sec	Volts	Amps	Watts	Total
11:00	1170	9-5	16	89	397
12:00	1170	9-5	16	92	413
AM	July 18				
1:00	1170	9-5	17	92	430
2:00	1170	9-5	17	92	447
3:00	1170	9-5	17	92	464
4:00	1170	9-5	16	92	480
5:00	1170	9-5	16	92	496
6:00	1170	9-5	16 1/2	90	512
7:00	1170	9-5	16 1/2	90	529
8:00	1170	9-5	16	90	545
9:00	1170	9-5	16	90	561
10	1170	9-5	16	90	577
11	1170	9-5	16	90	593
12	1170	9-5	16	90	609
1:00	1170	9-5	16-5	92	625
2:00	1170	9-5	16-5	92	642
3	1170	9-5	16-5	92	658
4	1170	9-5	17	94	675
5	1170	9-5	17	94	692
6	1170	9-5	17	94	709
7	1170	9-5	17	94	726
8	1170	9-5	17	94	743
9	1170	9-5	16-5	94	759
10	1170	9-5	16-5	90	775 Out



Transferred from #2 in Bath July 8, 20  
at 12 PM. 97 Amps in Bath  
No 2 Nickel put in No 6 Bath

~~2 Comp #1~~

Ice started flowing after  
put in copper bath

after stripping try to see if  
dope put in bath effects it

No 6 Bath

Time	Sh	Volta	Amps	Temp	Total
PM	1140	9.5	15	90	
AM		July	19		
6:00	1175	9.5	15	90	15
7:00	1140	7.5	15	90	30
8:00		7.5	15	90	45
9:00		7.5	15	90	60
10:00	1140	7.5	15	90	75
11:00	1140	7.5	15	90	90
12:00	1140	7.5	15	90	105
1:00	1140	7.5	15	90	120
2:00	1170	9.5	14.5	90	134
3:00	1170	9.5	14.5	90	148
4:00	1165	9.5	14.5	90	163
5:00	1165	9.5	15	90	178
6:00	1165	9.5	15.5	90	194
7:00	1165	9.5	15.5	90	209
8:00	1165	9.5	15.5	90	225
9:00	1165	9.5	15.5	88	240
10:00	1165	9.5	15.5	88	266
11:00	1165	9.5	15.5	85	281
12:00	1165	9.5	15.5	85	297
1:00	1165	9.5	15.5	85	312
2:00	1165	9.5	15.5	85	327
3:00	1165	9.5	16	90	342
4:00	1165	9.5	16	90	358
5:00	1165	9.5	16	92	374

July 18

Free started  
added at 12 PM.  
Sunday N.C.S.

20 cc of Copper Dope  
watch when  
it comes  
start.  
after stripping  
try  
to see if  
put in bath  
effects it

$$39 \left| \begin{array}{r} 691 \\ 39 \times 17 \\ \hline 273 \\ \hline 280 \end{array} \right| 17.7$$

Total Amps 691  
11 hours 39  
Average Amps 17.7

# #6 Bath

Time	Sp. Sol.	Volts	Amps	Temp	Stat.	430
12	1165	9.5	16	92	446	
1 PM	1165	20.20				
1	1165	9.5	16	91	462	
2	1165	9.5	16	91	478	
3	1165	9.5	17	90	478	
4	1165	9.5	17	90	519	
5	1165	9.5	16.5	90	528	
6	1165	9.5	16.5	90	545	
7	1165	9.5	16.5	90	581	
8	1165	9.5	16.5	90	578	
9	1170	9.5	16	90	594	
10	1165	9.5	16	90	610	
11	1165	9.5	16	90	626	
12	1165	9.5	16.5	95	642	
1 PM	1165	9.5	16.5	93	659	
2-	1165	9.5	16.5	92	675	
3-	1165	9.5	15.5	89	691	
4-						
5-						
6-						

Out

# Mac's Reports

July, 26, '20.

Suspected at Control Room

348 Suspected

2 blisters

6 Loose nickel

Notes from Jack Mac. follow these up for  
as you are able to do so thru  
the lathe room & see if they  
find any loose in. also if any  
centrals get loose.

July 28 Follow up report  
from Taylor's, Memo.

348 special 0 working mould  
records.

Rejected in Lathe Room

Rec'd 348

- 3 loose in center

- 12 " " Edges

1 Blisters

77 Rejected

16

Memor. July. 29, 20.  
M<sup>rs</sup> M.  
Rec'd in Control Room from Bath.  
7 A.M. July 27 to 7 A.M. July 28, 20.  
228 Working Moulds.  
Discarded at Control Room  
Blister = 25  
Loose Stripping = 2

Lathe Room Discards  
Loose Stripp Edge = 25  
" Nickel Center = 12  
Blister = 6

Total Rj = 70.

30  $\frac{70}{10}$  Rejects

Memor. Signed H. J. Taylor.

100  
732) 4588 45%  
5%

24 24 Cent  
Bedg for Cent

24 Bedg put in 133 = 13.5% Rej.  
22A " " 37 = 5.4 " "  
22 " " 71 = 5.6 " "

Discards from - July 29, 20.			
Bedg	name	Number discarded	% discarded
24	Lullow	83	14
	Kannally	25	2
	Brenn	25	2
		133	
22A	Watson	4	0
	Baker	9	0
	Smith	24	2
		37	8%
22	Largy	43	0
	Hebb	17	1
	Leumm	11	3
		71	24
Total		241	
From Press -			
Rough plate	2-4		
Revt	9-10-17	24	
Pitted	4-7	24	
Total		48	

Bldg Percent

jeep put in 122 = 12.2% Rj  
 22A " " " 39 = 3.4% " "  
 22 " " " 63 = 4.4% "

Discards from July 30, 20.

Bldg	operator	No of wheels	Discards	Score	Exhaust
24	Callen	54	7	4	20%
"	Kennedy	55		2	4%
"	Brennan	18	1	1	11%
22 A	Watson	18	-	-	✓
"	Calder	4	-	-	✓
"	Smith	7	1	-	14%
22	Perry	35	2	-	5 1/2%
"	Herb	7	-	-	✓
"	Klamm	21	1	-	4 1/2%
Total Wheels		214	12	7	
			Rj. 19		
			Total Project 8 1/2%		

Bldg Per cent

24 Bldg Pct in 86 = 20.9% Rej.  
 23B " 64 = 10.9% "  
 22 " 100 = 9.1% "  
 250

Discards July 3 120.

July 20	Operator Name	Moulds per man	Blister	Seize riv.	fatig	% Rejected Men
	Gullen	45	9	-	4	29.9
	Baker	23	1	1	1	13
	Smith	20	-	1	2	15
	Hovv	22	3	-	-	13
	Glenn	55	4	-	-	7
	Long	23	1	1	-	8
	Walters	21	-	1	-	5
	Kennelly	35	5	-	-	14
	Prannish	6	-	-	-	0
			250	23	4	7

288 Work moulds inspected in control room.  
 note 4 moulds sent through account of  
 rather being stain, was first rejected  
 at control Room.

This day 13% rejects

Disc. Discard. Aug. 1, 20

OPERTOR NAME	MOULDS PERMAN	BLISTER	LOSSE NICKEL	LATHE REJECT	Per Cent Accepted
24 Kullen	36	14	-	-	38%
Kennelly	51	2	-	-	4%
Burnham	34	2	-	-	6%
	121	18			
22H Araton	38	-	-	-	0
Belen	8	-	-	-	0
Smith	41	3	-	-	7
	187	3			
22H Long	38	2	-	-	5
Held	23	1	-	-	4
Down	46	2	-	-	4
	107	5			

8.2%

Total moulds 315

" discard 26

Put in 24 Bldg 121 discs, 15% discard

" " 22B " 187 " 17%

" " 22 " 107 " 46%





General average 3 days - 415  
 24 Bldg % discard 21.3% put in 265  
 22 " " " 31.1 " " 234  
 22 " " " 29.4 " " 234  
 Reported Aug 6, 20.

Aug 3, 20.

Total moulds 234  
 " discarded 23  
 " % Rejected 9.8%

Total put in 24 Bldg 169 = 9.4% also circle  
 " " " 22B 24 = 3.4% " "  
 " " " 22 " 36 = 16.6% "

Disc Records Aug 3, 1920

Operator	Moulds per min.	Blister	Good pieces	Rejected
Callow	60	3	2	8.3%
Kennelly	1	1	1	100%
Brown	108	8	2	9.2%
	169	16		
Long	15	1	1	6.6%
Helm	12	1	1	0
Summ	2	1	1	0
	29			
Baker	10	1	1	10.1%
Smith	19	5	1	26.3%
Nelson	7	1	1	0
Total	36	6		
2 discarded (?)				
	234	230	9%	
		210	9%	
		194		
Total loss		9.4%		
Total disc		234		

OPER'S NAME	TOTAL IN	REJECTED				DATE
		CONTROL	LATHE			
		BLISTER	LOOSE NICKEL	LOOSE CENTER	ASPECT OK	DISCARD PER CENT
Walker	33	2	4			18.1 %
Wendell	50	5	3			16. "
Wendell	27	1				3.7 "
Wendell	170	15				
Wendell	10	1				10. %
Wendell	52	7	2			17.3 "
Wendell	—	—	—			—
Wendell	62	11				
Wendell	33	—	3			9. %
Wendell	42	6	1			16.6 "
Wendell	—	—	—			—
Wendell	75	10				
Total						
%						

REJECTED  
CONTROL LATHE  
DATE  
AUG 5

Bldgs Per cent  
Total put in 24 Bldgs. 154 = 16.7%  
22 " 127 = 10. " "  
22B " 36 = 33. "

OPER. NAME		TOTAL PUT IN	REJECTED		DATE	
NAME		PUT IN	CLUSTER	LOOSE NICKEL	LOOSE CENTER	PER CENT
Allen	32	7			31	31.7%
Ward	57	5				8.7%
Ward	65	8			3	16.9%
	154	20			6	
Ward	50	3			1	8.7%
Ward	29	3			3	2.1%
Ward	48	2			1	6.2%
	127	8			5	
Ward	25	5			3	32.7%
Ward	6	1			1	33.3%
Ward	5	1			1	40.0%
	36	7			5	
Total Discard		=			317	
Rejects		=			51	
Loss		=			16.7%	
J. L.						

Bldg Per Cent  
 Total put in 24 Bldg 134 = 14.1 % Ref.  
 22 " 74 = 12.1 " "  
 22B " 70 = 17.1 " "

NAME	PUT IN	BUSTER	REJECTED		ACCEPT OK	DISCARD PER CENT
			CONTROL	LATHE		
	BETTER		LOOSE NICKEL	LOOSE CENTER		
Allen	26	5		1		23%
Smully	55	2		1		5.4
Smully	53	6		1		13.2 "
	134	16		3		
Wagner	16	—		—		0.
Helly	20	2		1		15. "
Wagner	38	6		—		15.7 "
	24	8		1		
Wagner	16	2		1		12.5 "
Smith	17	2		2		23.5 "
Wagner	37	4		1		13.5
	70	8		4		
Total Misc. = 278						
Rejects = 144						
% Loss = 15.1						
Remarks - not marked against men Rejects						
1 piece too thin						
1 long one						
1 bad center						

DATE AUG-6-

Bldg Per Cent  
 Total Part 24 Bldg. 164 = 15.2% Rej  
 " 22 " 46 = 8.7 " "  
 " 22B " 88 = 15.9 " "

OPER. NAME	TOTAL IN.	REJECTED		LOOSE NICKEL	DISC. CENTER	ACCEPT OK	DISC. AND D PER. CENT
		CONTROL	LATHE				
NAME	IN.	DISC.	DISC.	DISC.	DISC.	DISC.	DISC.
Allen	22	2	1				13.6 %
Smith	60	7	0				10.1 "
Smith	82	12	8				18.2 "
	164	21	8				
Allen	21	1	—				4.7 "
Smith	2	—	—				0. "
Smith	23	3	—				13. "
	46	4	—				
Allen	22	3	0				13.6 "
Smith	34	3	2				14.1 "
Smith	22	4	2				27.2 "
	88	10	4				
Total							
"							
"							
Remarks							
Disc'd = 298 Rejects = 46 Loss = 15.4 Topped in lathe = 1 Loose nickel = 1 Pinner Stock + Bent = 1							

DATE AUG 120

Bldg Per Cent.  
 Total put in 24 bldg 109 = 16.5% Rept  
 22 " 65 = 16.9 " " "  
 22 B 52 = 23 " "

COP NAME	TOTAL PUT IN	REJECTED			DATE
		CONTROL	LATHE	DISCARD	
NAME		BLANK	LOOSE NICK	LOOSE CENTER	PER CENT
Allen	43	8	1		20.7
Conley	24	3	—		12.5
Conley	<del>72</del>	<del>7</del>	<del>4</del>		15.2
	<u>139</u>	<u>18</u>	<u>5</u>		
Baker	58	7	3		17.2
Reed	7	—	—		14.2
Conley	<u>65</u>	<u>8</u>	<u>3</u>		—
Baker	—	—	—		—
Smith	39	9	7		25.6
Totten	13	2	—		15.3
	<u>52</u>	<u>11</u>	<u>1</u>		

Total Disc = 256  
 " Rept = 47  
 " Loss = 18.3%  
 Remarks, stuck —

Bldg Per Cent.  
 Total put in 4 Bldg. 179 = 11.1% Reject.  
 22 " 104 = 10.6 " "  
 22B " 53 = 9.4 " "

NAME	PUT IN BATH	REJECTS				DATE
		CONTROL	LATHE			
		BLISTER NICKEL	LOOSE NICKEL	LOOSE CENTER	% REJECTED	
Callow	48	10	2		25.7%	Aug 9
Kennell	36	2	2		11.1 "	
Spencer	95	1	4		5.2 "	
	179	13	8			
Torgy	47	2	—		4.2 "	
Hobbs	44	4	1		11.2 "	
Sturman	13	1	3		30.7 "	
	104	7	4			
Baker	11	1	—		9.1 "	
Smith	12	2	—		16.6 "	
Watson	30	2	—		6.6 "	
	53	5				

Total put in. 336  
 " Rejects. 37  
 % Loss per day 11.7%



Bldg Per Cent  
 Total put in by Bldg 95 = 25.2 % Reject  
 22 " 49 = 10.2 " "  
 22B " 37 = 18.9 " "

W. F. 1000  
 20.5  
 20.5

NAME	PUT IN BATH	REJECTS				DATE Aug 10
		CONTROL	LATHE	LOOSE NICKEL	LOOSE NICKEL	
Callen	27	10	4			57.8%
Kennedy	26	2	2			15.3 "
Grenada	42	3	3			14.2 "
	95	15	9			
Long	12	—	—			—
Holt	24	1	2			8.3 "
Werner	13	1	1			15.7 "
	49	2	3			
Baker	—	—	—			—
Smith	3	—	—			—
Watson	34	7	—			20.5
	37	7				

Total put in 181  
 " Rejects 37  
 " Less for play 26.4  
 Remains 1 assembled

Total Bldg Per Cent -  
 24 Bldg 123 = 17.8% Rejected  
 22 " 100 = 13.2% " "  
 228 " 6 = 0.8% " "

NAME	POT IN BATH	REFLECTS				DATE
		CONTROL	LATHE	LATHE	LATHE	
Willow	45	8	7			14. 11
Remilly	58	4				12. "
Grinnard	20	3	7			50. "
	123	15				
Large	35	1	1			57 "
Holt	65	11				67 "
Winnon	100	12	1			
Belcor						
Smith						
Watson		6				
		6				

Here, the room filled transparent, but much to 28834  
 Smith Put in water, 28834 & 28835 to 28836  
 Baker " " " " " "

Total put in 229  
" Rejects 35  
% " Loss per day 15.2%

Bldg Per Cent.  
 Part in 24 Bldg 223 = 139.7 Ry.  
 223 " 133 = 9.7 " "  
 22B " 14 = 7.1 " "

Aug 22

TIME	POT IN BATH	REJECTS	
		CONTROL	LA THE
		Blank	Blank
Collins	58	16	3
Wally	68	2	2
Spencer	97	4	4
	223	22	9
Long	50	3	—
Herr	25	—	—
Alvord	51	2	1
	133	12	1
Walker		Reced Master	Master in put in
Smith	14	—	—
Watson	14	—	1
	14	—	1

Total put in 370  
 Rejected 45  
 % Loss per day 12.17

Bldg per Cent  
 Total put in 24 Bldg 144 = 25.9% Rej  
 22 " 31 = 12.9 "  
 22.8 " 74 = 25.6 "

NAME	PUT IN BATH	REJECTS			DATE	% REJECT
		CONTROL	LATHE			
Fullen Kennelly Grennell	26	11	5	3	Aug. 13	73.70
	58.	3	-	2		86 "
	29	-	2	1		15. - "
	104	21	6			
Largy Herd Lugan Wagon	20	-	1	1		10. - "
	31	4	3	5		38.7 "
	23	1	-	3		21.7 "
	74	10	9			
Baker Smith Morton Boyd	16	1	1	-		12.5
	15	1	1	1		40. -
	31	3	1			

Total put in 209  
 " Reject 50  
 % " Loss per day. 23.9%

B.C.G. Rev. Cont.  
 Put in 24 beds 113 = 33.6 % reject  
 22 B. 100 = 27.7 %  
 22 40 = 25.5 %

NAME	PUT IN BATH	REJECTS			DATE
		CONTROL	LATHE		
		BUSTER	LOOSE N. C. R. L.	LOOSE C. R. L.	% REJECT
Cullen Kennedy Cremall	51	19		6	49.1%
	29	1		4	17.2%
	33	8		—	24.2%
	113	28			
Lenny Horn Kamm	50	3		4	14.0%
	24	5		3	33.3%
	26	11		1	46.1%
	100	27			
Cullen Smith Kamm	33	4		4	24.2%
	3	—		2	66.6%
	8	1		—	12.5%
	44	11			

Total put in 257  
 Reject 76  
 % Loss per day 29.5%

NAME	PUT IN BATH	REJECTS			DATE
		CONTROL	LATHE		
		BLKTS	LOSS N. CR # L	LOSS ENTER	% REJECT
Cullen Kennedy Crumm	63	20	7		42.8%
	42	3	2		11.9 "
	80	8	9		21.2 "
	185		49	24 Bg	26.4%
Lange Horvath Krumm	23	2	3		21.7%
	35	11	—		31.4 "
	10	3	—		30. — "
	68		19	22 B	27.9%
Baker/ Smith Watson	5	—	—		0. "
	20	5	—		25. "
	20	4	—		20. "
	45		9		22 = 20%

Total put in 298  
 Reject 77  
 % " Loss per day. 25.8

NAME	PART IN BATH	RESULTS				DATE
		CONTROL	LATHE			
		DISC	LO. CR. L	LO. CR. R	% REJECT	
Kallen	40	11	4		35.7%	Aug 16, 20
Kennelly	37	10	2		32.4%	
Bennett	32	1	4		12.4%	
	109		32		24 Body 29.3%	
Largy	82	8	3		13.4%	
Hertz	17	3	4		41.1%	
Alm	41	7	7		34.2%	
	140		32		22.8 Body 22.8%	
Rehner	—	—				
Smith	37	10	8		48.6	
Watson	—					
	37		18		22 Body 48.6	

Total part in 276  
 Reject 84  
 % " Ins per day. 30.4%

NAME PATH CENTRE TIME

Clasp 1720

Center	128	58	20
Small	6	2	1
Barrel	3	—	—
	137	81	—

60.7%

50.1"

0.1

24 Bly - 57.1%

Large	41	7	5
Small	12	4	—
Barrel	28	3	—
	81	19	—

29.2%

33.3"

10.3"

22 Bly - 23.4%

Center	—	—	—
Small	52	14	—6
Barrel	9	5	—
	61	25	—

0

38.4%

55.5"

22 Bly - 40.9

Total put in 279

Reject 125

70 " Loss per day 44.8%



DATE  
Aug. 18, 20

NAME	POT IN BATH	REJECTS			% Reject
		CONTROL		LATHE	
		BLISTER	LOSS NICKEL	LOSS CENTER	
Cullen Connelly Bennett	66	11		2	19.8 %
	82	14		5	23.1 "
	87	13		6	21.8
	235		51		24.2 avg 21.7 %
Long Holt Klumm	26	4		4	30.7 %
	24	8		5	54.1 "
	8	1		0	22.5 "
	58		19		22.8 avg 32.7 %
Baker Smith Katon	—	—		—	—
	2	—		—	0.
	3	1		—	33.3 %
	51		1		22.8 avg 20.7 %

Total put in 298  
 " Reject 71  
 % " Loss per day 23.8 %

NAME	PUT IN BATH	REJECTED		
		CONTROL	LATHE	
		BLISTER	LOOSE NICKEL	LOOSE CENTER
Cullen	37	5	7	
Kearley	40	5	1	
Pranley	40	4		
	117		19	
Long	6	1		
Horn	38	5		
Kenn	11	1		
	55		7	
Baker	—	—	—	
Smith	43	5	—	
Watson	—	—	—	
	43		5	

Aug. 1920.

% Reject.

24.3%

12.5 "

12.5 "

24 Bldg 16.2%

16.6%

13.1 "

11.1 "

13 Bldg 22.3-12.7

0.2

11.6 "

0

Rej 22. 11.6 "

Total Put in = 214

" Reject = 31

" Loss per day = 14.4%

NAME	PUT IN DATA	REJECTED		
		CONTROL	LATHE	LOOSE CONTR
Cullen	35	BLATER	NICKEL	
	75	1	1	
	76	2	2	
	76	1	2	
Hawley	186		9	
	54	1	1	
	47	4		
	58	1	1	
Hawley	159		8	
	-	-	-	
	-	-	-	
	-	-	-	
Baker	1	-	-	
	-	-	-	
	-	-	-	
	-	-	-	
Smith	1	-	-	
	-	-	-	
	-	-	-	
	-	-	-	
Watson	1	-	-	
	-	-	-	
	-	-	-	
	-	-	-	

Aug 20.

% Reject.

5.57

5.58

3.9

24 Bely 4.8%

3.7%

8.5

3.4

22 Bely 5%

0

22 Bely 0

Total Put in = 346

" Reject = 17

" Loss per day = 4.9%

NAME	PUT IN BATH	REJECTED			
		CONTROL	LATH	LOOSE	LOOSE
Lullam Hendell Brendon	17	BLISTER	LOOSE	HAIRKEL	LOOSE
	60	1	3		
	8	2			
	85		6		
Lynn Holt Lynn	60	3	3		
	22	2	2		
	5				
	87		8		
Oakden Smith Watson	48	1	2		
	48		3		

Aug 21

7. Rejected

0.

6.6%

25. -

21.6% 7.6

10.7%

9.9%

0.

21.6% 9.1

6.2%

22.6% 6.2

Total Put in = 220

" Rejected = 17

" Loss per day = 7.7%

Aug 22

NAME	PUT IN BATH	NET FETTER				
		CONTRACT	LATH			
20	1					7 Reject
40	1					5% 2.5"
106	1		1			1.8"
166			4			24 Blg = 2.4%
20	1					5% 0. -
28	-					0
29	-					0
77			1			22 Blg 1.2%
20	-	-	-	-	-	0
20	-	-	-	-	-	0
20	-	-	-	-	-	0
20						22 Blg 0.7%

Total Put in = 263  
 " Reject = 5  
 " Loss per day = 1.9%

NAME	PUT IN BATH	REJECTED			
		CONTROL		LATHE	
		SILVER	LOOSE NICKEL		
Fallon	43	1	=		
Connelly	23				
Spencer	105	4	1		
Long	60	2	-		
Perkins	21	1	-		
Sumner	6	-			
Adair	-	-	-	-	-
Smith	-	-	-	-	-
Ketner	-	-	-	-	-
Total					
"					
"					
Put in					
Rec't					
Loss					

Aug 23  
% Refcat

NAME	PUT IN BATH	REJECTED			
		CONTROL		LATHE	
		BLISTER	LOSS	NICKEL	
Billion	42	1			
Kennedy	40	—			
Gunnah	109	1		1	
44 Kelly					
Long	44	—			
Holt	57	1			
Winn	25	—			
22B					
Sehn	—	—	—	—	—
Smith	—	—	—	—	—
Winn	—	—	—	—	—
22					

Aug. 24<sup>th</sup> 28.  
% Reject

Total Put in 317  
" Reject  
" Loss 26.

NAME	PUT IN BATH	REJECTED			
		CONTROL		LATHE	
		BUSTED	LOOSE NUTS		
Rollin	33	—	—		
Smiley	29	—	—		
Carroll	44	2	—		
24B	106				
Long	65	1		1	
Holt	17	—	—		
Thorn	29	—	—		
22B	111				
Baker	—	—	—	—	—
Smith	30	—	—		
Watson	27	2			
22	57				
Total				Put in	
"				Rej	
"				Pods	

Aug 25

% Reject

70



NAME	PUT IN BATH	REFLECTED	
		CONTROL	LATHÉ
		BLISTER	LOOSE NICKS
Calder	70	—	—
Conely	28	—	—
Spencer	97	—	—
44Bdy			
Shay	44	Pinch	—
Holt	45	dent	—
Hum	5	—	—
23B			
Baker	—	—	—
Smith	8	—	—
Johnson	7	—	—
22			
Total Put in 314			
" Rj			
" Ls %			

Aug 26  
% Reject

PUT IN CONTROL LATHE  
 DEFECTED  
 BATH

58 1  
 28  
 46 3  
 31  
 27 1  
 17  
 22 1  
 22

Total 229  
 10

DATE

Aug 28, 20

Allen	77	-	-
Smith	42	-	-
Johnson	91	-	-
4 Aug	-	-	-
	<u>210</u>	-	-

Aug	28	-	-
John	70	-	-
Summ	-	-	-
22 Aug	-	-	-
	<u>98</u>	-	-

Aug	29	-	-
Smith	-	-	-
John	27	-	-
2	-	-	-
	<u>56</u>	-	-

Total Put in 368  
 " Repeat  
 " Add

2



Aug 30

DATE

NAME	PUT IN	REJECTED		DATE
		CONTROL		
		ALUMIN	LOOK NICKEL	
Miller	48	—	—	
Connelly	47	—	—	
Connelly	78	—	—	
4 Bldg				
Engy	47	—	—	
45	45	—	—	
Blumma	20	—	—	
22 B				
Baker	—	—	—	—
Smith	11	—	—	
Patton	6			
22				
Total put in n " Reject Ass				

Total put in  
Reject  
Hse

360 300

Aug 31,

NAME	PUT IN BATH	REJECTED			DATE
		CONTROL	LASTY		
		ALUMINUM	COPPER NICKEL	MISCELLANEOUS	
Keller	28	-	-	/	
Kennedy	86	-	-	/	
Brannon	76	-	-	//	
off Bely					
Gray	73	-	-	/	
<del>Gray</del>	25	-	-	/	
Heim	39	-	-		Keller
22B					
Baker	-	-	-	-	
Smith	22	-	-	-	
Katsons	27	-	-	-	
22					
Total Put in Rejected					376
" "					
" "					

NAME	PUT IN BATH	REJECTED		DATE
		CONTROL	LATE	
		SUBIN	LOOSE NICKEL	
14	44	5		
20	20	1		
76	76	1		
18	18	---		
18	18	---		
62	62	---		
19	19	---		
16	16	---		

1133

NAME	PUT IN BATH	REJECTED				DATE
		CONTROL		LATHE		
		BLISTER	LOSS & NICKEL			
Allen	49	3 Blister				Aug. 2
Connelly	53	-	-			
Conrad	110	-	-			
Edg						
	30	-	-			
	36	-	-			
	22	1 ent	-			
Baker	11	-	-			Total Put in 348
Smith	-	-	-	-	-	
Laturn	37	-	-			
22						" Rej
						" Loss



[ITEM(S) FOUND IN BOOK]

Special Test of 50 Working Moulds  
8/2/22

Discards  
0 Control Room

1. Buckled  
2. Loose Mould Room

5 Series of Darts Press

1 Buckled

1 Buckled & Rough Plating

7

10 Discards

40 OK

846 - in Control  
10 discards

80% OK

50% plating

M. J. Taylor

[ITEM(S) FOUND IN BOOK]

Special Test 8/21/20  
50 Working Models

discards <sup>Sept</sup>  
2 Buckled Control Arm

3 Series Dents  
2 Loose Hinges  
1 Broken Centre  
Rather Sept

5 Series Dents  
1 Bitten  
Chase Room

74 Discards

36 OK Models

72% OK 74% plus

W J Taylor

Aug 22/20

50 Working Moulds

Discards

2 Bent

Cutter  
Room

2 Broken Centre

1 Loose Hopper Latch

3 Series Dents

6

5 Series Dent

1 Rough x Cited Press

6

12

36 OK.

72 1/2 OK 80% plain

[ITEM(S) FOUND IN BOOK]

50 Working Moulds Tested Aug 23/24

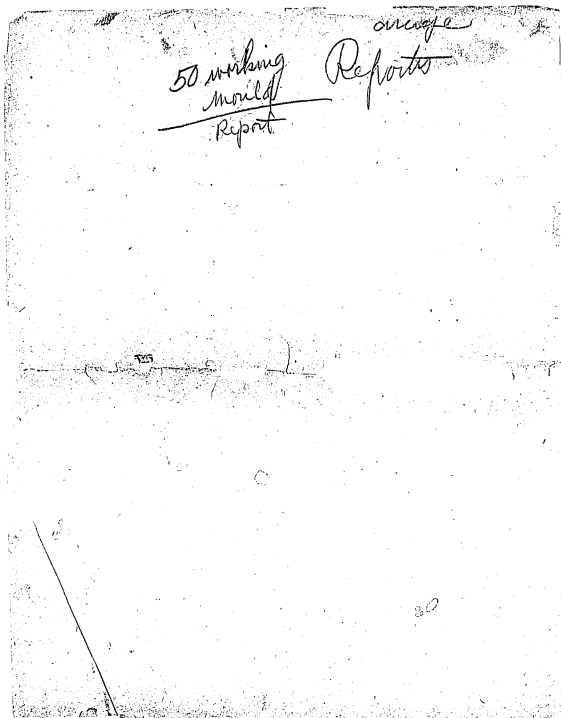
Discards  
 3 Diesets Control Room  
 3 Scratched  
 2 Broken Centre Lathe  
 2 Blasters Room

2 Series of put Press

75  
 38 0.15 Moulds 76% OK - 816 plates

W. J. Taylor

[ITEM(S) FOUND IN BOOK]



[ITEM(S) FOUND IN BOOK]

50 Working Shields Room Special

8/24/50

Discards  
0 Control Room

7 Broken Centre  
2 Discards Lath Room  
1 Corrosion  
1 Buckles

6-

50) 60 (12  
50  
10  
88

2 Series of Discs Priss  
13

3.7 0.16

74% OK 88% plain

W. J. Taylor

[ITEM(S) FOUND IN BOOK]

[illegible]

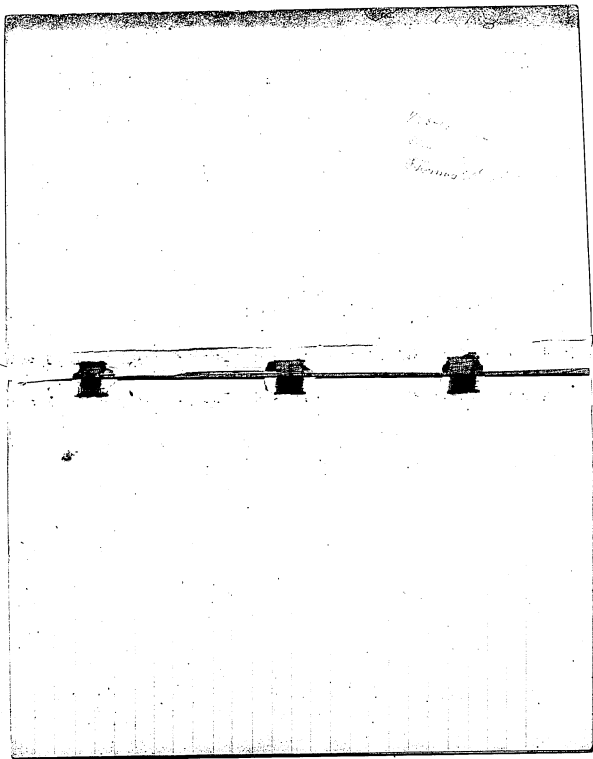
[ITEM(S) FOUND IN BOOK]

[illegible]



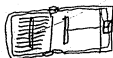
**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Plating Experiments**  
**Notebook, N-20-06-07.2**

This notebook was used during June-July and December 1920 by Edison, Walter N. Archer, and W. J. Taylor. The entries pertain to the plating processes involved in the manufacture of disc records. The early entries by Edison focus on attempts to copperplate with anodes made from nickel-faced copper molds no longer needed for production. Following these entries are tabular reports of various molds plated in "Bath 3" in June and July with information on the date and time, specific gravity, volts, amps, clock temperature, and other conditions during plating. Notes, suggestions, and instructions by Edison are interspersed throughout the early tables. An additional page of instructions by Edison has been inserted into the book. The entries for December describe unsuccessful efforts to plate a working mold from an actual record. The front cover is labeled "Baths Disc" and is marked "D[3]." The pages are unnumbered. Approximately 80 pages have been used.



No 3 Bath

#A. Anodes



3 BATH

A anodes

6 disc all cut in  
1/4 sections

1 Disc 46 hours 23 average amps  
9.5 Volts 1170 Spec Grav. 80 Croch Temp  
already has been plated out +  
removed

2nd Disc put in June

In 12.25 PM 7th June

Take out No 2  
after 36 hours  
826 amp hours  
which is about 23 amps  
for 36 hours

	Volts	amp	Spec Grav	Croch
9 1/2	23	1170	80	
9 3/4	23	1170	85	
9 1/4	23 1/2	1170	82	
9 1/2	23	1170	81	
9 1/4	23	1170	82	
9 1/2	22	1175	81	
9 1/4	22	1175	80	
9 1/4	22	1170	82	
9 1/2	22 1/2	1170	83	
9 1/2	22	1170	83	
9 1/4	23	1170	83	
9 1/2	22 1/2	1170	82	
9 1/2	23	1170	83	
9 1/2	23	1170	83	
9 1/2	23	1170	83	
9 1/2	23	1170	83	

June 8.

12.25 A.M.

1.25

2.25

# Bar H 3

	Wells	Amph	Spec	Depth
3. 25	9 1/2	24	1170	82
4. 25	9 1/2	24	1170	83
5. 25	9 1/2	23 1/2	1170	84
6. 25	9 1/2	24	1170	83
7. 25	9 1/2	24	1170	82
8. 25	9 1/2	23	1175	80
9. 25	9 1/2	23	1175	81
10. 25	9 1/2	22 1/2	1180	87
11. 25	9 1/2	23	1170	81
12. 25 PM	9 1/2	22	1175	82
1. 25	9 1/2	17 1/2	1175	83
2. 25	9 1/2	21	1175	83
3. 25	9 1/2	22	1175	83
4. 25	9 1/2	22	1175	80
5. 25	9 1/2	21	1175	83
6. 25	9 1/2	21 1/2	1175	81
7. 25	9 1/2	21	1175	82
8. 25	9 1/2	21 1/2	1175	82
9. 25	9 1/2	22	1180	82
10. 25	9 1/2	21	1180	82
11. 25	9 1/2	21	1170	82
12. 25	9 1/2	21	1170	83
1. 25	9 1/2	21	1170	83
2. 25	9 1/2	21	1170	83

Caliper

.069

June 9 - AM

out

anode brack water plotting for 15 minutes while repairing it.

June 9th  
A M

8.45  
9.45  
10.45  
11.45  
12.45  
1.45  
2.45  
3.45  
4.45  
5.45  
6.45  
7.45  
8.45  
9.45  
10.45  
11.45  
12.45

Bath #53

SS	Orlt	Comp	Temp
1170	9.5	23	80
1170	9.5	22 1/2	80
1170	9.5	23	81
1170	9.5	23	80
1170	9.5	23	82
1170	9.5	23	82
1170	9.5	22	80
1170	9.5	22	82
1170	9.5	22	83
1170	9.5	22	83
1170	9.5	22	82
1170	9.5	21 1/2	80
1170	9.5	21	80
1170	9.5	22	80
1170	9.5	22	80
1170	9.5	22	81
1170	9.5	22	82

2nd  
Disc in  
8 AM 2.50

June 10

1.45 AM  
2.45  
3.45  
4.45  
5.45  
6.45  
7.45  
8.45

1170	9.5	22	83
1170	9.5	22	83
1170	9.5	23	83
1170	9.5	23	83
1170	9.5	23	83
1170	9.5	23	83
1170	9.5	22	82
1170	9.5	23	83

255

181

No 3 Bath  
2nd Linc

861 amp in 39 hours

Out 11.45 P.M. June 10

Bath 3

Sec	Volts	Amp	Amp
9.45	1175	9.5	23 82
10.45	1175	9.5	22 82
11.45	1175	9.5	22 82
12.45	1175	9.5	22 81
1.45	1175	9.5	22 80
2.45	1175	9.5	22 1/2 80
3.45	1175	9.5	22 80
4.45	1175	9.5	22 80
5.45	1175	9.5	22 80
6.45	1175	9.5	21 80.220 34 hours
7.45	1175	9.5	21 80
8.45	1175	9.5	21 80
9.45	1175	9.5	20 1/2 80 37 hours
10.45	1175	9.5	21 80
11.45	1175	9.5	21 80
Out			
June 10			
PM			
			0.695 cal per

June 11

9 A.M.

Bath No 3

	L.G.	Grat	Comp	Temp
9.00	1170	9 1/4	19	80
10.00	1170	9 1/4	20	81
11.00	1170	9 1/4	20	82
12.00	1170	9 1/4	20	82
1.00	1170	9 1/4	20	82
2.00	1170	9 1/4	20	80
3.00	1170	9 1/4	20	82
4.00	1170	9 1/2	20	83
5.00	1170	9 1/2	20	83
6.00	1171	9 1/4	20	82
7.00	1170	9 1/4	20	83
8.00	1170	9 1/4	20	83
9.00	1170	9 1/4	20	83
10.00	1170	9 1/4	20	82
11.00	1170	9 1/4	20	80
12.00	1170	9 1/4	20	80

3rd Sec  
m  
same Arch

June 12

1.00 A.M.

1.00	1170	9 1/4	20	80
2.00	1170	9 1/4	20	80
3.00	1170	9 1/4	20	80
4.00	1170	9 1/4	20	81
5.00	1170	9 1/4	20	80
6.00	1170	9 1/4	19	80
7.00	1170	9 1/4	20	80
8.00	1170	9 1/4	20	81
9.00	1170	9 1/2	20	83

17 9

Anode broken replaced with  
Copper wire 6 P.M.

This anode gave 3 discs  
068" thick  
only 3 to 5 oz left

June 3 3<sup>rd</sup> Disc Out

3.30 June-13

857 Amp in 4 1/2 hours

at about 20 Amp

Per hour

June 12  
A.M.

Bath No 3

3<sup>rd</sup> Disc  
same Grade

Time	S.E.	Folth	Amp	Temp
10.00	1170	9 1/2	19	83
11.00	1170	9 1/2	18	83
12.00	1170	9 1/2	18	83
1.00	1170	9 1/2	18	83
2.00	1170	9-5	18	83
3.00	1170	9-5	17	83
4.00	1170	9-5	18	82
5.00	1170	9-5	17	80
6.00	1170	9-5	20	82
7.00	1170	9-5	22	83
8.00	1170	9-5	23	83
9.00	1170	9-5	23	83
10.00	1170	9-5	23	83
11.00	1170	9-5	23	81
12.00	1170	9-5	23	85
1.00 P.M.	1170	9-5	23	84
2.00	1170	9-5	22	84
3.00	1170	9-5	22	82
3.30	1170	9-5	11	82
A.M.				
OUT				

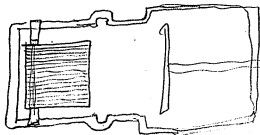
out 3-30

OUT



At 3 PM Sunday came down to room & found all the electric lights burning over baths

Another anode — June 13 1920 3 Bait



1/4 sections placed solidly together without washers — No cloth separator used

June 13-

Time	Lbs	Alt	Temp	Wind	Wind
6.50	1175	9 1/2	21	82	
7.50	1175	9 1/2	23	83	23
8.00	1175	9 1/2	22	83	45
9.00	1175	9 1/2	22 1/2	83	67
10.00	1175	9 1/2	22	80	89
11.00	1175	9 1/2	22	80	111
12.00	1175	9 1/2	22	80	133
1.00	1170	9 1/2	23	80	156
2.00	1170	9 1/2	23	81	179
3.00	1170	9 1/2	23	82	202
4.00	1170	9 1/2	24	80	226
5.00	1170	9 1/2	23	80	249
6.00	1170	9 1/2	23	82	276
7.00	1170	9 1/2	23	81	295
8.00	1175	9 1/2	22	80	317

Bath 3

1<sup>st</sup> anode

June 14

AM	Spec	Volt	amp.	Temp.	Temp.
9.00	1170	9-5	23	83	840
10.00	1170	9-5	23	83	863
11.00	1170	9-5	25	83	888
12.00	1170	9-5	25	83	413
1.00	1175	9-5	25	80	438
2.00	1175	9-5	25	80	463
3.00	1175	9-5	25	80	488
4.00	1175	9-5	25	80	551
5.00	1175	9-5	25	80	538
6.00	1175	9-5	27	80	576
7.00	1175	9-5	26	83	591
8.00	1175	9-5	25½	83	616
9.00	1175	9-5	25½	83	642
10.00	1175	9-5	25	82	667
11.00	1175	9-5	25	82	692
12.00	1175	9-5	25	80	717
1.00	1175	9-5	25	80	742
2.00	1175	9-5	25	80	767
3.00	1175	9-5	25	80	792
4.00	1175	9-5	25	80	817
5.00	1175	9-5	25	80	842
6.00	1175	9-5	24	80	876
Out					
866 amp					

6.00 AM  
866 AMPThis is first one from  
this anode

Out. 6.00 A.M. June 15

866 Amp in - 86 hours  
at about 24 Amp per hour

Pro 3  
Blanked with Nickel

715 3

2nd *Amper*  
in

June 15 AM	SG	Volts	Amp	Temp.	Total Amp
10:30	1175	9 1/2	24	83	
11:30	1175	9 1/2	26	81	26
12:30	1175	9 1/2	26	81	52
1:30	1175	9 1/2	26	81	78
2:30	1170	9 1/2	26	81	104
3:30	1170	9 1/2	26	80	130
4:30	1170	9 1/2	26	80	156
5:30	1170	9 1/2	26	80	183
6:30	1170	9 1/2	25	80	208
7:30	1170	9-5	26	80	234
8:30	1170	9-5	26	80	260
9:30	1170	9-5	27	83	287
10:30	1170	9-5	27	83	314
11:30	1170	9-5	27	82	341
12:30	1170	9-5	27	80	368
1:30	1170	9-5	27	80	395
2:30	1170	9-5	27	80	422
3:30	1170	9-5	27	80	449
4:30	1170	9-5	27	80	476
5:30	1170	9-5	27 1/2	80	503
6:30	1170	9-5	28	80	531
7:30	1170	9-5	28	80	559
8:30	1170	9-5	27	83	586
9:30	1170	9-5	27	83	613

1:30 PM - dug support  
 Eat. off at rod.

This anode not a success  
 because current goes around  
 sides direct - read sh rod  
 direct - only safe place  
 would be the center



Doubtful if any good

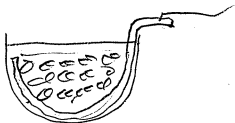
775 3 2<sup>nd</sup> Disc

Time	Lat.	Long.	Temp	Temp	Total temp
10:30	1170	9 1/2	27	80	640
11:30	1170	9 1/2	27	80	667
12:30	1170	9 1/2	28 1/2	82	695
1:30	1170	9 1/2	30	82	725

27  
 out

Anode Abandoned

Bath. No. 3 1 1/2 Lisc



This is filled with Copper  
pieces twisted more  
than the 16 lb ones - same  
as others

No. 6. Stopped in Bath from 6-10 for  
4-20. reason belt was too loose  
Started to plate tonight

Time	Spec	Bath	amp	Temp	Temp
6:00	1170	9-5	23	82	
7:00	1170	9-5	25	82	25
8:00	1170	9-5	27	82	52
9:00	1170	9-5	27	83	79
10:00	1170	9-5	27	83	106
11:00	1170	9-5	27	83	133
12:00	1170	9-5	27	81	160
Sum 14					
1:00 AM	1170	9-5	27	80	187
2:00	1170	9-5	27	80	214
3:00	1170	9-5	26	80	240
4:00	1170	9-5	26	80	266
5:00	1170	9-5	26	82	292

noticed it goes off a vapor  
possible gas coming off  
somehow in unknown  
bubbles note 28 after

No. 8. Temp. in Bath at 10:30  
June 12 11:4 - Bath - 83 in cover

Power off from 12:00 to 12:30

Temp. dropped from 114° to 108°

Started to plate again got 25 am at  
1:30 - was getting 28 at 114 in Bath.

# Bath No. 3

June 14	S.G.	Volts	Amp.	Temp.	W. Amp.
6:00 AM	1170	9-5	27	82	319
7:00	1170	9-5	26	81	345
8:00	1170	9-5	26	80	341
9:00	1175	9-5	27	83	398
10:00	1175	9-5	28	83	426
11:00	1175	9-5	28	83	454
12:00	1175	5-5	25	81	479 Current off
12:30 PM					" on
1:30	1175	9-5	26	81	505
2:30	1175	9-5	27	82	532
3:30	1175	9-5	27	82	559
4:30	1175	9-5	27	82	586
5:30	1175	9-5	27	82	613
6:30	1170	9-5	26	82	639
7:30	1175	9-5	27	82	666
8:30	1175	9-5	27	82	693
9:30	1175	9-5	26	82	719
10:30	1175	9-5	26	82	745
11:30	1175	9-5	26	82	771
12:30	1175	9-5	26	80	797
June 15					
1:30	1175	9-5	26	80	723
2:30	1175	9-5	26	80	749
3:30	1175	9-5	27	82	775
4:30	1175	9-5	26	80	802
5:30	1175	9-5	26	80	828

15  
16  
17

Bath No 3

June 18 AM	SS	Volts	Amps	Temp	Total	
6.30	117.5	9.5	26	80	854	
7.00	117.5	9.5	26	80	867	Out 37 hours

743 1st Disc Out June 18  
867 Amp in 37 hours  
about 23 1/2 lbs. per hour

Basket Creek

Back No 3 2nd Lie  
Sonneborn

June 18.

AM	Shm	Birth	Camp	Camp	Hotel
11:30	1175	9-5	21	83	
12:30	1175	9-5	22	83	22
1:30	1175	9-5	22	83	44
2:30	1175	9-5	23	83	67
3:30	1175	9-5	22	84	89
4:30	1175	9-5	22	84	111
5:30	1175	9-5	22	83	133
6:30	1175	9-5	22	83	155
7:30	1175	9-5	22	83	177
8:30	1175	9-5	22	83	199
9:30	1175	9-5	22	83	221
10:30	1175	9-5	21	83	242
11:30	1175	9-5	22	80	264
12:30	1175	9-5	22	80	286
June 19					
1:30	1175	9-5	22	80	308
2:30	1175	9-5	22	80	330
3:30	1175	9-5	22	80	352
4:30	1175	9-5	22	80	374
5:30	1175	9-5	21	80	395
6:30	1175	9-5	21	80	416
7:30	1175	9-5	21	81	437
8:30	1175	9-5	21	82	458
9:30	1175	9-5	21	83	479
10:30	1175	9-5	21	83	500 23 Over



Back No 3 2nd Lie

JUNE  
19

AM	Shn	Tolls	amp	Temp	Total
11.30	1175	9 1/2	21	83	521
12.30	1175	8 1/2	21	83	542
1.30	1175	9 1/2	21	83	563
2.30	1175	8 1/2	23	83	586
3.30	1175	8 1/2	23	83	609
4.30	1175	8 1/2	23	83	632
5.30	1175	8 1/2	23	83	655
6.30	1175	8 1/2	23	83	678
7.30	1175	9 1/2	23	83	701
8.30	1175	8 1/2	21	83	722
9.30	1175	8 1/2	20	83	742
10.30	1175	9 1/2	21	83	763
11.30	1175	9 1/2	21	83	784
AM					
12.30	1175	9 1/2	21	83	805
1.30	1175	9 1/2	20	80	825
2.30	1175	9 1/2	20	80	845
3.30	1175	9 1/2	20	80	865

Out

Temp  
in 40 hours  
21 1/2 Per hour

June 22 10:30 Amode Chamber  
filled up with copper gas  
3<sup>rd</sup> size

Beth 9<sup>th</sup> 3. 3<sup>rd</sup> size  
in  
same Amode

JUNE 22 PM	Shw	Volts	Imp	Imp	Total
11.00	1175	9 1/2	19 1/2	83	
12.00	1175	9 1/2	19	83	19
AM June 23					
1.00	1175	9 1/2	19	83	38
2.00	1175	9 1/2	19	80	57
3.00	1175	9 1/2	20	80	77
4.00	1175	9 1/2	20	80	97
5.00	1175	9 1/2	20	80	117
6.00	1175	9 1/2	20	80	137
7.00	1175	9 1/2	20	80	157
8.00	1175	9 1/2	19	80	176
9.00	1175	9 1/2	20	83	196
10.00	1175	9 1/2	20	83	210
11.00	1175	9-5	20	83	230
12.00	1175	9-5	20	83	250
1.00	1175	9-5	20	83	270
2.00	1175	9-5	20	83	290
3.00	1175	9-5	20	83	310
4.00	1175	9-5	20	83	330
5.00	1175	9-5	20	83	350
6.00	1175	9-5	20	83	370
7.00	1175	9-5	20	83	390
8.00	1175	9-5	20	83	410
9.00	1170	9-5	20	83	420
10.00	1170	9-5	20	84	440

m3 Bath Chamber filled up  
 Comp - dropped from 19 to 17 amp  
 when filled Comp went up to 20 amp  
 June 24 5:30 PM

Bath #153 3rd Lisc

JUNE-23  
 PM

Time	Volts	Amps	Temp	Notes
11:00	1170	9 1/2	19	83 459
12:00	1170	4 1/2	19	84 478
1:00	1170	9 1/2	19	84 497
2:00	1170	7 1/2	20	80 575
3:00	1170	9 1/2	21	80 538
4:00	1170	7 1/2	22	80 560
5:00	1170	7 1/2	22	80 582
6:00	1170	9 1/2	23	80 605
7:00	1170	9 1/2	23	80 628
8:00	1170	9 1/2	21	82 649
9:00	1170	5 1/2	21	83 670
10:00	1170	9 1/2	21	83 691
11:00	1170	9 1/2	21	83 711
12:00	1170	9 1/2	21	83 730

start

June 25

12:00	1170	9 1/2	17 1/2	81 449
1:00	1170	9 1/2	18	82 467
2:00	1170	9 1/2	19	83 488
3:00	1170	9 1/2	19	83 605
4:00	1170	9 1/2	19	83 624
5:00	1170	9 1/2	20	81 644
6:00	1170	9 1/2	20	81 664

Out at 864 amh

Bath #153 June 25 6:00 AM

3rd Lisc Out

864 Amp 43 hours start

20 Amp for June

En June 22 11:00 PM

started the second time

12:00  
 730  
 12:00  
 to make Room  
 for 1st Lisc

N<sup>o</sup> 3 Beth 4 Disc Inn  
*Oliver Amick*

JUNE	Ln	With	mp	Temp	Total
26 A.M.					
10.30	1170	9 1/4	18	80	18
11.30	1170	9 1/4	18	83	18
12.30	1170	9 1/4	17 1/2	80	35
1.00	1170	9-5	17 1/2	80	53
2.00	1170	9-5	17 1/2	80	70
3.00	1170	9-5	17 1/2	83	88
4.00	1170	9-5	17 1/2	83	105
5.00	1170	9-5	17 1/2	80	123
6.00	1170	9-5	17 1/2	80	139
7.00	1170	9-5	17 1/2	83	157
8.00	1170	9-5	17 1/2	83	173
9.00	1170	9-5	17 1/2	83	190
10.00	1170	9-5	17 1/2	83	208
11.00	1170	9-5	17 1/2	83	225
12.00	1170	9-5	17 1/2	81	243
A.M. June 27					
1.00	1170	9-5	17 1/2	81	260
2.00	1170	9-5	16	80	276
3.00	1170	9-5	17	81	293
4.00	1170	9-5	17	81	310
5.00	1170	9-5	17	81	327
6.00	1170	9-5	17	81	344
7.00	1170	9-5	17	81	361
8.00	1170	9-5	17 1/2	81	378

No 3. Bath 4<sup>th</sup> Liscam

JUNE  
27

AM	Lsh	Volts	Imp	Comp	Hotel
9.00	1170	9-5	18	83	396
10.00	1170	9-5	18	83	414
11.00	1170	9-5	18	83	432
12.00	1170	9-5	18	83	450
1.00	1170	9-5	18	83	468
2.00	1170	9-5	18	83	486
3.00	1170	9-5	18	83	504
4.00	1170	9-5	18	83	522
5.00	1170	9-5	18	83	540
6.00	1170	9-5	18	83	558
7.00	1170	9-5	17 1/2	83	575
8.00	1170	9-5	17 1/2	83	593
9.00	1170	9-5	17 1/2	81	610
10.00	1170	9-5	17 1/2	81	628
11.00	1170	9-5	18	81	646
12.00	1170	9-5	18	80	664
AM June 28					
1.00	1170	9-5	17	80	681
2.00	1170	9-5	17	80	698
3.00	1170	9-5	17 1/2	81	715
4.00	1170	9-5	17 1/2	81	733
5.00	1170	9-5	17	81	750
6.00	1170	9-5	17	81	767
7.00	1170	9-5	17	82	784
8.00	1170	9-5	17	82	801

hrs  
50) 882.0 (17.5  
50  
382  
350  
280  
250

#3 Bath

Plate	Sp. Gr	Volts	Amps	Temp	Total
-------	--------	-------	------	------	-------

This image shows a blank page from a manuscript. The page features several vertical ruling lines spaced evenly across its width. On the far left edge, there is a decorative border consisting of a series of small, repeating geometric or floral motifs. The paper appears aged, with some minor discoloration and faint smudges visible. There is no text or other markings on the page.

Reg thick Cap bai, scrap-

Scram. Reg Linn

Screen in this Bath was  
Wash Reg. Brown Color.

Take out 750 amper hours

No 3 Bath 1<sup>st</sup> Discim

JULY	Sh	Volts	amp	amp	total
PM					
11.00	1165	9-5	16	80	
12.00	1165	9-5	16	80	16
AM	July	4-4			
1.00	1165	9-5	16	80	32
2.00	1165	9-5	16	80	48
3.00	1165	9-5	16	83	64
4.00	1165	9-5	16	83	80
5.00	1165	9-5	16	83	96
6.00	1165	9-5	16	83	112
7.00	1165	9-5	16	83	130
8.00	1165	9-5	17 1/2	84	147
9	1165	9-5	18	84	165
10	1165	9-5	18	84	183
11	1165	9-5	18	82	201
12.00	1165	9-5	18	82	219
PM	1165	9-5	18	82	237
1.00	1165	9-5	17	84	254
2.00	1165	9-5	17-5	83	271
3	1165	9-5	17-5	83	289
4	1165	9-5	17-5	83	306
5	1165	9-5	18	82	324
6	1165	9-5	18	81	342
7	1165	9-5	18	81	360
8	1165	9-5	18	81	378
9	1165	9-5	18	81	396
10	1165	9-5	18	81	

not a nub on

2374mm



Bath 9:3

Outside Cal = .055  
Inside " = .063

Cleaned up .043  
45) 745 (16.5  

$$\begin{array}{r} 45 \times 2 \\ \underline{225} \\ 745 \\ \underline{225} \\ 220 \end{array}$$

Bath No 3 taken out at 10.00 o'clock.  
July 3. am. and not. taking with pliers.

#3 Bath #1 disc.  
After cleaning tank free from  
grease & coal.  
Run total to 750 Amps.

Start July 3, 20. 11 PM.  
Finish " 5.20. 8 PM.  
Total Amps 745  
" hours 45

Average Amps. 16.5

NE 3 Bath 1st disc in

JULY	AM	Volts	Temp	Temp	Total	
11:00	1165	9-5	14	81	413	not a rest in
12:00	1165	9-5	16 1/2	81	429	
AM	guy					
1:00	1165	9-5	16 1/2	81	446	
2:00	1165	9-5	16	81	462	
3:00	1165	9-5	15 1/2	81	477	
4:00	1165	9-5	15 1/2	81	493	
5:00	1165	9-5	15 1/2	81	508	
6:00	1165	9-5	15 1/2	81	524	
7:00	1165	9-5	15	81	539	
8:00	1165	9-5	15 1/2	81	554	
9:00	1165	9-5	15 1/2	81	570	not a rest in
10:00	1165	9-5	16	81	586	
11:00	1165	9-5	16	81	602	
12:00	1165	9-5	16	81	618	
1:00	1165	9-5	16	81	634	
2:00	1165	9-5	15 1/2	81	649	
3:00	1165	9-5	16	81	665	
4:00	1165	9-5	16	81	681	
5:00	1165	9-5	16	81	697	
6:00	1165	9-5	16	81	713	
7:00	1165	9-5	16	81	729	not a rest in
8:00	1165	9-5	16	81	745	cut
Cables Cleaned up						
043 - not jumped						45 hrs

Drilled in No. 3 edge not  
rounded off.

Use, revolve 1/2 P.M.

205 | 318.2 | 15.5  
 $\frac{205}{1130}$   
 $\frac{1025}{1070}$

#3 Bath #2 case  
 Start. July 6, 20 - 2 P.M.  
 Finish. July 7, 20 - 11:30 A.M.  
 Total Amps = 318  
 " hours = 20 1/2  
 Average Amp = 15.5

Bath No 3

disc 2nd int

July 6

P.M.	Specs	Volts	Amps	Temp	Total
2.00	1165	9-5	14	75	
3.00	1165	9-5	14	80	14
4.00	1165	9-5	16	83	80
5.00	1165	9-5	15-5	83	45
6.00	1165	9-5	15-5	84	61
7.00	1165	9-5	16	84	77
8.00	1165	9-5	16	84	93
9.00	1165	9-5	15-5	84	108
10.00	1165	9-5	15-5	84	124
11.00	1165	9-5	16	84	140
12.00	1165	9-5	15-5	84	155
A.M.	July 7				
1.00	1165	9-5	15-5	84	171
2.00	1165	9-5	15-5	84	186
3.00	1165	9-5	15-5	84	202
4.00	1165	9-5	15-5	84	217
5.00	1165	9-5	15-5	84	233
6.00	1165	9-5	15-5	84	248
7.00	1165	9-5	15-5	84	264
8.00	1165	9-5	15	84	279
9.00	1165	9-5	15	84	295
10.00	1165	9-5	15	84	310
11.00	1165	9-5	15	84	326

Ant

Added 5<sup>00</sup> general bath dose  
to floating solution. 11<sup>30</sup> AM.

# #3 Bath

3<sup>rd</sup> disc inv.

Start July 7, 20 at 11<sup>30</sup> AM.

date	Sp. No.	Vols	Amp	Temp	Total
7/7 <sup>30</sup> AM	1165	9.5	14.5	82	
7/8 <sup>30</sup>	1165	9.5	14.5	82	14
1 <sup>30</sup> PM	1165	9.5	14.5	83	29
2 <sup>30</sup>	1165	9.5	15	83	44
3 <sup>30</sup>	1165	9.5	15	84	59
4 <sup>30</sup>	1165	9.5	15	85	74
5 <sup>30</sup>	1165	9.5	15	85	89
6 <sup>30</sup>	1165	9.5	15.5	84	105
7 <sup>30</sup>	1165	9.5	15	84	120
8 <sup>30</sup>	1165	9.5	15.5	83	135
9 <sup>30</sup>	1165	9.5	15	83	150
10 <sup>30</sup>	1165	9.5	15	82	165
11 <sup>30</sup>	1165	9.5	15	82	180
12 <sup>30</sup>	1165	7.5	15	82	175
1 AM	708, 81				
11 <sup>30</sup>	1165	9.5	15	82	216
12 <sup>30</sup>	1165	7.5	15.5	82	226
1 <sup>30</sup>	1165	7.5	15.5	82	241
2 <sup>30</sup>	1165	7.5	15.5	82	257
3 <sup>30</sup>	1165	7.5	16	82	273
4 <sup>30</sup>	1165	9.5	16	82	289
5 <sup>30</sup>	1165	9.5	16	82	305
6 <sup>30</sup>	1165	9.5	14.5	82	319
7 <sup>30</sup>	1165	9.5	15	80	334
8 <sup>30</sup>	1165	9.5	14.5	80	349

# 3 Butte

3rd place.

Wt	Sydr	Volt	Amp	Jump	Total
1130	1165	9.5	15	82	364
1230	1165	9.5	15	82	379
1330	1165	9.5	14.5	80	393
2330	1165	9.5	14.5	80	408
3330	1165	9.5	14	80	422
4330	1165	9.5	14.5	80	436
5330	1165	9.5	15	80	451
6330	1165	9.5	15	81	466
7330	1165	9.5	15	80	481
8330	1165	9.5	15	80	496
9330	1165	9.5	15	80	511
10330	1165	9.5	15	80	526
11330	1165	9.5	15	80	541
12330	1165	9.5	14.5	80	556
AM July 9					
1330	1165	9.5	14.5	80	571
2330	1165	9.5	14.5	80	586
3330	1165	9.5	14.5	80	601
4330	1165	9.5	14.5	80	616
5330	1165	9.5	14.5	80	631
6330	1165	9.5	15	80	646
7330	1165	9.5	14.5	80	661
8330	1165	9.5	14.5	80	676
9330	1165	9.5	15	78	687
10330	1165	9.5	16.5	79	707

Added another

Added 10<sup>cc</sup> gum bath dose to  
upper plate Sol. at 11 AM. July 9.

$$50 \left| \begin{array}{r} 755 \\ 25 \\ \hline 50 \end{array} \right| 15.1$$

Start July 7, 20. - 11<sup>30</sup> AM.  
Finish " " - 12<sup>30</sup> AM.  
Total Amps 755  
" hours 50  
Average Amp 15.1

#3 Bath

3<sup>rd</sup> disc.

Start July 9, 20.

Time	Sp	Volts	Amps	Temp	Total
10 <sup>30</sup>	116.5	9.5	17	80	721
11 <sup>30</sup>	117.0	9.5	17.5	80	738
12 <sup>30</sup>	116.5	9.5	16.5	82	755

Cut

Test #2 Copper disc. 8-4 then 80 AMP  
 hours, then wash + put in Cu bath  
 wet. Copper bath for 600 amp hours.  
 Then give to Mr Edison to try to  
 peel off if possible  
 Recharge - for 2 min before  
 in plate

8 | 90 | 11.2

#2 Bath Nickel Plate #1 disc  
 2 P.M. on disc. Nickel plate anode.  
 Started July 7, 20 - 3:10 P.M.  
 Finish " " 7, 20 - 11:12 P.M.  
 Total Amps 90  
 " hours 8  
 Average Amps. 11.2

## #2 Bath

#1 disc, in,  
Nickel Plate

Started July 7, 20 -

Start	Stop	Volts	Amps	Time	Total
3:10 P.M.	12:30	9.5	9	82	
4:10	12:30	9.5	10	89	10
5:10	12:30	9.5	11	92	21
6:10	12:30	9.5	11.5	92	32
7:10	12:30	9.5	11.5	92	44
8:10	12:30	9.5	11.5	98	55
9:10	12:30	9.5	11.5	98	67
10:10	12:30	9.5	11.5	98	78
11:10	12:30	9.5	11.5	98	90

Cut  
 Transfer to #8 Copper  
 plate bath.

Rotate in Ni bath 2 min. per 100 amp  
to 800 amp then rotate in Copper  
no current 12 min. to 600 amp reverse

$$10 \left| \begin{array}{c} 120 \\ 120 \end{array} \right| 12.$$

Start July 7, 20 - 12-PM.  
Finish July 8, 20 - 10-AM  
Total amp 120  
Average amp 12.

## #2 Bath

Start July 7, 20.

Series	Spool	Volts	Amps	Temp	Total
1200	1280	9.5	12	92	
AM					
1200	1280	9.5	12	92	12
1200	1280	9.5	12	95	24
1200	1280	9.5	12	100	36
1200	1280	9.5	12	98	48
1200	1280	9.5	12	98	60
1200	1280	9.5	12	95	72
1200	1280	9.5	12	95	84
1200	1280	9.5	12	94	96
1200	1280	9.5	12	94	108
10-	1280	9.5	12.5	94	120

#2 disc  
Nickel plate  
Electrolyte

added 1/2 gallon  
dist H<sub>2</sub>O.

No Shimmer in  
Ni Bath

Transfer to #7  
Copper plate bath

## #3 Bath

4<sup>th</sup> disc.

Date Started July 9, 20					
Time	Sp. 30	V. 60	Air 12	Temp.	Total
3:30 PM	1165	9.5	17	81	
4:30	1165	9.5	17	80	17
5:30	1165	9.5	17	80	34
6:30					
7:30					
8:30					
9:30					
10:30					
11:30					
12:30					

 Remarks  
 Balata  
 Test #1

 Out No Good  
 Spruce trees &  
 knobs.



6) 122 / 23

### #3 Bath

5<sup>th</sup> disc.

Started July 9, 20

Time Spent	Voltage	Temp	Total	Remarks
6:00 PM	116.5	9.5	14.5	80
7	116.5	9.5	14.5	80
8	116.5	9.5	18.5	80
9	116.5	9.5	20	80
10	116.5	9.5	20.5	80
11	116.5	9.5	24	80
12	116.5	9.5	24	80
July 10, 20				
1:00 PM				

Out out because  
of tree extended  
the anode chamber  
N.G.

The Plated disc to 48 Amps  
 Taken out by night shift  
 washed in cold water and let  
 stand for 6 hours on rack  
 was dry when put in copper  
 bath Mr Edison marked what  
 seemed like stains  
 put in to bath dry & put with on  
 after disc was in sol.

### #3 Bath Copper Plate

Start July 10, 20, 9 AM.

Time	Temp	Volt	Amps	Temp	Total
9:00	116.5	9.5	21	80	
10	116.5	9.5	19	80	
11	116.5	9.5	17.5	80	
12	116.5	9.5	17	80	
1:00	116.5	9.5	17	80	
2:00	116.5	9.5	17	80	
3:00	116.5	9.5	17	80	
4:00	116.5	9.5	17	80	
5	116.5	9.5	17	80	
6	116.5	9.5	16.5	80	
7	116.5	9.5	16.5	80	
8	116.5	9.5	16.5	80	
9	116.5	9.5	16.5	80	
10	116.5	9.5	16.5	80	
11	116.5	9.5	16.5	80	
12	116.5	9.5	16.5	80	
AM	July 11, 20.				
1:00	116.5	9.5	16.5	80	
2:00	116.5	9.5	16.5	80	
3:00	116.5	9.5	16.5	80	
4:00	116.5	9.5	16.5	80	
5:00	116.5	9.5	16.5	80	
6:00	116.5	9.5	16.5	80	
7:00	116.5	9.5	16.5	80	
8:00	116.5	9.5	16.5	80	
9:00	116.5	9.5	16.5	80	

6 # disc in

Transfer from  
#2 to Bath



10.00 AM Put in more scrap pieces

#3. Bath

6<sup>th</sup> Decm

Stationer's Widie

July	Shn	Volls	Imp	Imp	Total
AM					
9-60	1165	9-5	165	80	402
10	1165	9-5	18	88	420
11	1165	9-5	17-5	80	437
12	1165	9-5	17-5	80	449
PM					
140	1165	9-5	17-5	80	465
2-40	1165	9-5	17-5	80	482
2	1165	9-5	18	80	500
4	1165	9-5	18	80	518
5	1165	9-5	18	80	536
6	1165	9-5	17-5	81	553
7	1165	9-5	17-5	81	571
8	1165	9-5	17-5	81	587
9	1165	9-5	17	81	604
10	1165	9-5	17	81	621
11	1165	9-5	16-5	81	637
12	1165	9-5	165	81	654
AM	July	12			
1165	1165	7-5	16	81	710
1165	1165	9-5	16	81	726
1165	1165	7-5	16	81	742
1165	1165	7-5	16	81	758
1165	1165	7-5	16	81	774
1165	1165	7-5	16	81	790
1165	1165	9-5	16	81	806
1165	1165	9-5	16	81	822

$$\begin{array}{r} 202 \\ 167 \\ \hline 135 \end{array}$$

Start July 10-9 AM  
 Finish 12-9 "  
 Total Ounces 202  
 " hours 48  
 Average Ounces 16.7

#3 Bath

6 disc in  
Stair or Niche

Sp Br	Votto	Amp	Temp	Total	Out
92.16	16.5	9.5	16.5	83.1	802

192 Amps is plotted

Put in wet.

One minute

3.6 Amps at the 9th notch  
then full current.

Stained when first  
put in copper.

) 760 (

~~Total Amps 760.~~  
~~Average Amps~~

# 3 Bath.

Started July 12, 20. - 3 PM.

Time	Sp gr	Volts	Amps	Temp	Total
3 PM	11.65	9.5	16		
4 PM	1170	9.5	16.5	80	16
5 -	1165	9.5	18	80	34
6	1165	9.5	17.5	80	52
7	1165	9.5	17	80	69
8	1165	9.5	17	80	86
9	1165	9.5	17.5	81	104
10	1165	9.5	18	83	122
11	1165	9.5	18	83	140
12	1165	9.5	17.5	83	157
July 13, 20.					
1 PM	1165	9.5	18	81	175
2 PM	1165	9.5	18	81	193
3 PM	1165	9.5	18	81	211
4 PM	1165	9.5	18	81	229
5 PM	1165	9.5	18	81	247
6 PM	1165	9.5	18	81	265
7 PM	1165	9.5	18	82	283
8 PM	1165	9.5	18	82	301
9 PM	1165	9.5	18.5	82	320
10 PM	1165	9.5	17.5	82	337
11 PM	1165	9.5	18	83	355
12 AM	1165	9.5	17.5	83	372
1 PM	1165	9.5	18.5	83	391
2 -	1165	9.5	18.5	85	409

$$43 \overline{) 760} \begin{array}{r} 17 \\ 330 \\ \hline 330 \\ \hline 0 \end{array}$$

Total Amp/22 760  
" 43  
Change Amp/ 17

# # 3 Bath

July 18, 20.	Sp. Dr.	Volts	Amp.	Temp.	Total
3 PM	1165	9.5	11.5	85	427
4.0	1165	9.5	18	85	445
5.0	1165	9.5	18	85	463
6	1165	9.5	18	80	481
7	1165	9.5	18	80	499
8	1165	9.5	18	80	517
9	1165	9.5	18	85	535
10	1165	9.5	17.5	84	552
11	1165	9.5	17.5	83	570
12	1165	9.5	14.5	83	587
1 AM	July 14				
1.00	1165	9.5	17.5	83	605
2.00	1165	9.5	18	83	623
3.00	1165	9.5	18	83	641
4.00	1165	9.5	18	83	659
5.00	1165	9.5	18	83	677
6.00	1165	9.5	17	84	694
7.00	1165	9.5	16.5	84	710
8.00	1165	9.5	16.5	83	727
9	1165	9.5	16	80	743
10	1165	9.5	17	81	760

Cont

95 Amps in bath  
Revised 2 minutes then current  
put on.

Put in copper bath dry  
with full current on.

This rise was hanging on rack  
from Ni Bath  
July 13, 20 - 10 P.M.  
July 14, 20 - 1 P.M. before  
putting in copper bath

### #3 Bath

Started July 14 @ 1 P.M.

Time	Temp	Volts	Amps	Energy	Total
1 P.M.	116.5	9.5	11	80	16
2 P.M.	116.5	9.5	16	80	33
3	116.5	9.5	17	85	50
4	116.5	9.5	17	85	67
5	116.5	9.5	17	85	84
6	116.5	9.5	17	85	101
7	116.5	9.5	16.5	85	117
8	116.5	9.5	16.5	85	134
9	116.5	9.5	16.5	83	150
10	116.5	9.5	16.5	83	167
11	116.5	9.5	16.5	83	183
12	116.5	9.5	16.5	83	200
July 15, 20,					
1 P.M.	116.5	9.5	16.5	83	216
2 P.M.	116.5	9.5	16.5	83	233
3 P.M.	116.5	9.5	16.5	81	251
4 P.M.	116.5	9.5	16.5	81	266
5 P.M.	116.5	9.5	16.5	81	283
6 P.M.	116.5	9.5	16.5	81	300
7 P.M.	116.5	9.5	16.5	81	315
8 P.M.	116.5	9.5	16.5	81	332
9 P.M.	116.5	9.5	16.5	81	349
10 P.M.	116.5	9.5	16.5	81	366
11 P.M.	116.5	9.5	16.5	80	383
12 P.M.	116.5	9.5	16.5	80	400

$$\begin{array}{r}
 43 \overline{) 775} \quad (18. \\
 \underline{40 \times} \\
 345 \\
 \underline{345} \\
 0
 \end{array}$$

$$\begin{aligned}
 \text{Total Amps} &= 775 \\
 " \text{ hours} &= 4.3 \\
 \text{Average Amps} &= 18.
 \end{aligned}$$

### #3 Bath

Time	Sp. 2	Voltage	Amps	Sample	Total
1:15	1165	9.5	16.5	80	399
2	1165	9.5	17.5	80	417
3	1165	9.5	17.5	80	434
4	1165	9.5	17.	80	451
5	1165	9.5	17.5	80	469
6	1165	9.5	18	80	487
7	1165	9.5	19	92	506
8	1165	9.5	19	92	525
9	1165	9.5	19.5	93	544
10	1165	9.5	20	92	574
11	1165	9.5	21	92	595
12	1165	9.5	21	90	616
1 AM	1165	9.5	20.		
2	1165	9.5	20.	75	634
3	1165	9.5	20.5	70	654
4	1165	9.5	20.5	72	678
5	1165	9.5	20.5	72	696
6	1165	9.5	20.5	71	718
7	1165	9.5	20.5	70	734
8	1165	9.5	19	70	756
9	1165	9.5	19	70	775

cont

43 hr



after 30 min open circuit for 24 min

Part in dry; Copper bath  
full current on

### #3 Bath

Time	Sp. Sol.	Volts	Amps	Temp	Total
11 am	1165	9.5	17.5	91	
12	1165	9.5	17.5	91	17
1 P.M.	1165	9.5	18.5	89	36
2-	1165	9.5	19	90	55
3-	1165	9.5	19	94	74
4-	1165	9.5	19	90	93
5-	1165	9.5	18	90	111
6-	1165	9.5	18	90	129
7-	1165	9.5	18	88	147
8-	1165	9.5	18	88	165
9-	1165	9.5	18	88	183
10-	1165	9.5	18	88	201
11-	1165	9.5	18	89	219
12-	1165	9.5	18	89	237
July 17					
1 P.M.	1165	9.5	17.5	90	254
2-	1165	9.5	17.5	90	272
3-	1165	9.5	17	90	290
4-	1165	9.5	17	90	308
5-	1165	9.5	17	90	326
6-	1165	9.5	17.5	90	344
7-	1165	9.5	17.5	90	361
8-	1165	9.5	17.5	93	379
9-	1165	9.5	18	93	397
10-	1165	9.5	17.5	95	414

Transferred from  
#2 Wet Bath  
July, 16, 20.  
Total Amps 137 hr

Total Amp 759  
 " fuses 43  
 Average Amps 17  $\frac{1}{2}$

# Bath B #

July 17-20					
AM	Spd	Volts	Amps	Watts	Total
11:00	1165	9-5	17	98	431
12-	1165	9-5	17	90	448
1:00	1170	9.5	16.5	90	464
2-	1170	9.5	18	95	482
3-	1170	9.5	18	95	500
4-	1170	9.5	18	95	518
5-	1170	9-5	18	95	536
6-	1170	9-5	18	93	554
7-	1170	9-5	18	90	572
8-	1170	9-5	18	90	590
9-	1170	9-5	17.5	90	608
10-	1170	9-5	17	90	625
11-	1170	9-5	17	89	642
12-	1170	9-5	17	92	659
AM	July	1820			
1:00	1170	9.5	17	92	676
2:00	1170	9.5	17	92	693
3:00	1170	9.5	17	92	710
4:00	1170	9.5	16 $\frac{1}{2}$	92	726
5:00	1170	9.5	16 $\frac{1}{2}$	92	743
6:00	1170	9.5	16	92	759

Comp  
 43 fuses

Round Edge  
 Part is dry  
 Revolve 3 minutes then full current  
 Part in Co-2 per dry  
 full current on  
 Tread formed after 5 hrs in air, Bath

### #3 Bath

Started July 19, 20: at 10 AM.

Time	Sp. Rev.	Temp.	Temp.	Temp.
10:00 AM	1165	9.5	15	90
10:10	1165	9.5	16	94
10:20	1165	9.5	17	94
10:30	1165	9.5	17	94
10:40	1165	9.5	17	92
10:50	1165	9.5	17	90
11:00	1165	9.5	17	88
11:10	1165	9.5	17	88
11:20	1165	9.5	17	85
11:30	1165	9.5	15.5	85
11:40	1165	9.5	15.5	85
11:50	1165	9.5	15	90
12:00	1165	9.5	15	92
12:10	1165	9.5	15	92
12:20	1165	9.5	16	91
12:30	1165	9.5	16	91
12:40	1165	9.5	16	90
12:50	1165	9.5	16	90
1:00	1165	9.5	16	90
1:10	1165	9.5	16	90
1:20	1165	9.5	16	90
1:30	1165	9.5	16	90
1:40	1165	9.5	16	90
1:50	1165	9.5	16	90
2:00	1165	9.5	16	90

Transferred from  
 #1 in Bath  
 July 19, 20, 10 AM  
 1127 Amp. in plate

$$38) 616 \div 16.2$$

$$\begin{array}{r} 38 \times 16 = 608 \\ \underline{616} \\ 8 \end{array}$$

616  
38  
16.2  
Average amps = 16.2

### #3 Bath

Time	Spgr	Volt	Amps	Temp	Total
10 AM	116.5	9.5	16	96	393
11	116.5	9.5	16	96	409
12	116.5	9.5	17	95	426
1 PM	116.5	9.5	17	93	443
2-	116.5	9.5	16.5	89	459
3-	116.5	9.6	16	89	475
4-	116.5	9.5	16	88	491
5-	116.5	9.5	16	88	507
6-	1180	9.5	19	88	526
7-	1175	9.5	18	85	544
8-	1175	9.5	18	80	562
9-	1175	9.5	18	80	580
10-	1175	9.5	18	80	598
11-	1170	9.5	18	80	616

Added 800 cc  
H<sub>2</sub>SO<sub>4</sub> at 66° B  
No Copper bath  
at 6 PM July 22, 24  
out

Tracked Blank No 1

Still Bitch

Vlec J. 20

Time	Vlec Amps	Take	H-n
2:30	12	1	
3:30	12.5	1	1
4:20	12.5	1	2
5:30	13	1	3
6:30	11.5	1	4
7:30	11.5	1	5
8:30	11.5	1	6

Remark

Still Bitch

Did not cover much  
over 2nd track  
granular plate.  
No Good

Vlec J. 20  
Still Bitch No 2

Time	Vlec Amps	Take	H-n
2:30	12	1	
3:30	9.5	2	1
4:20	9	2	3
5:30	8.5	2	5
6:30	9.5	2	7
7:30	9.5	2	9
8:30	9.5	2	11
9-	10	2	12

Tracked Blank

Added 2 c.c. Copper ink.  
After 1 hour started plating  
on first track  
After 1 hour started plating on  
second track.  
After 1 1/2 hours started plating  
on third track  
out.

Better covered all except center 7 hrs.


This was put in at 9:30 to  
finish as much as possible  
the plating of the trace.  
Taken out 1:45.



# 4 Trashed Blank  
Still Ruth  
Remains.  
Added 500 G. per plate

Time	Ykt	any	Total	Hours	per plate
2 PM	10	1			
310	"	2			1
430	"	3			2 1/2
5	"	4			3
545	9	5			3 1/4
530	9	10			3 1/2
600	"	10			4 1/2
730	"	10			5 1/2
830	"	10			6 1/2
930	"	10			7 1/2
1030	"	10			8 1/2
11 PM	"	10			9-

Plated very poor



Streaked plate  
all around circles

Cut

# No 5 Tracker Blank

Time	Volts	Amps	Time	Hours
11:30	11.5	2	1	$\frac{1}{2}$
11:30	11.5	3	2	$\frac{1}{2}$
11:30	11.5	5	3	1
12:05	12.5	5	4	2
12:05	12.5	5	5	3
12:05	12.5	5	6	4
12:05	12.5	5	7	5
12:05	12.5	5	8	6
12:05	12.5	5	9	7
12:05	12.5	5	10	

Sp. 1  
all covered except a  
thin streaks circular  
plate about 2" from  
outside of disc



[ITEM(S) FOUND IN BOOK]

Wash well & rinse with distilled  
water - put in wet -  
Put one in 10 Minutes 7 Bath

The other 20 minutes before the  
Current is put on - 4 Bath -

Mark or put in so Knob is at  
Top

The Ni in No 7 - had edge peel for 1" long  
probably Edge too sharp -

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Plating Experiments**  
**Notebook, N-20-06-08.1**

This notebook was used during June-July 1920 and January-March 1921 by Edison, Walter N. Archer, Paul B. Kasakove, and W. J. Taylor. The entries pertain to the plating processes involved in the manufacture of disc records. The early entries by Edison contain data on various plating baths. Following these entries are tabular reports by Archer and Taylor of various plating baths and various molds plated in "Bath 5" in June and July 1920. Notes, suggestions, and instructions by Edison are interspersed throughout the early tables. The second half of the book contains entries from January-March 1921 for experiments, numbered 1-59, on speeding up the plating process. These experiments resulted in the adoption of a fast nickel plating process that reduced plating time. At the end of the book are several pages of tabular forms without data (not selected). The front cover is labeled "5" and is marked "Nickel Fast Plating Processes Experiments." The pages are unnumbered, and several pages have been removed from the book. Approximately 135 pages have been used.

5 Bath -  
June 8th - 2nd Dec in

1-20 Pm June 8

2-20

3-20

4-20

5-20

6-20

7-20

8-20

9-20

10-20

11-20

12-20



June 9

1-20 AM

2-20

3-20

4-20

5-20

6-20

7-20

8-20

9-20

10-20

11-20

12-20

June 9

SG	Volt	Amp	Temp
1175	9.5	28	83
1175	9.5	21	84
1175	9.5	21	83
1175	9.5	21	80
1175	9.5	21	82
1175	9.5	20	81
1175	9.5	20	82
1175	9.5	20 1/2	82
1180	9.5	21	82
1180	9.5	21	82
1170	9.5	21 1/2	80
1170	9.5	22	81
1170	9.5	22 1/2	83
1170	9.5	22 1/2	83
1170	9.5	22	81
1170	9.5	22	81
1170	9.5	22	82
1170	9.5	22	81
1170	9.5	21	83
1170	9.5	20	80
1175	9.5	20	80
1170	9.5	20	81
1170	9.5	20	81

5 Bath  
June 9

	SG	Volts	Amps	Temp
2.0	1170	9 1/2	20	80
3.20	1170	9 1/2	20	80
4.20	1170	9 1/2	20	82
5.20	1170	9 1/2	20	83
6.20	1170	9 1/2	20	83
7.20	1170	9 1/2	19	81
8.20	1170	9 1/2	18 1/2	80
9.20	1170	9 1/2	18 1/2	80
10.20	1170	9 1/2	18	80
11.20	1170	9 1/2	19	80
12.20	1170	9 1/2	20	82
1.20 AM June 10	1170	9 1/2	20	82
2.20	1170	9 1/2	20	80
3.20	1170	9 1/2	20	82
4.20	1170	9 1/2	20	82
5.20	1170	9 1/2	20	83
6.20 Out	1170	9 1/2	20	83

At 5 2nd Disc

Calhoun 066

41 hours

21 Amp Per hour

Out June 16 6.20 A.M

June 10<sup>th</sup>  
AM

5 Bath

3<sup>rd</sup> Spec in

	S.F.	Volts	Temp	
10.00	1175	9.5	20	81
11.00	1175	9.5	20	81
12.00	1175	9.5	21	82
1.00	1175	9.5	21	81
2.00	1175	9.5	20	82
3.00	1175	9.5	19	81
4.00	1175	9.5	18	80
5.00	1175	9.5	18	81
6.00	1175	9.5	18	81
7.00	1175	9.5	19	80
8.00	1175	9.5	19	80
9.00	1175	9.5	19	80
10.00	1170	9.5	18	80
11.00	1170	9.5	18	80
12.00	1170	9.5	18	81
1.00	1170	9.5	18	80
2.00	1170	9.5	18	81
3.00	1170	9.5	17 <sup>3/4</sup>	80
4.00	1170	9.5	17	80
5.00	1170	9.5	17	80
6.00	1170	9.5	17	82
7.00	1170	9.5	17	80
8.00	1170	9.5	18	80
9.00	1170	9.5	15	80
10.00	1170	9.5	15	81
11.00	1170	9.5	15	82
12.00	1170	9.5	16	82

PM  
June 11

137

133

72

85 1/4

79

26

June 11 5 Bath 3rd Line

AM	Sec	dots	amp	Gen
100	1170	9 1/2	15	80
100	1170	9 1/2	15	81
100	1170	9 1/2	15	80
100	1170	9 1/2	15	80
100	1170	9 1/2	15	83
100	1170	9 1/2	15	82
100	1170	9 1/2	15	83
100	1170	9 1/2	15	83
100	1170	9 1/2	14	83
100	1170	9 1/2	14	82
100	1170	9 1/2	16	80
100	1170	9 1/2	15	80

Bath chamber running over

June 12	Sec	dots	amp	Gen
100	1170	9 1/2	16	80
100	1170	9 1/2	17	80
100	1170	9 1/2	17	80
100	1170	9 1/2	16	81
100	1170	9 1/2	16	80
100	1170	9 1/2	16	80
100	1170	9 1/2	17	80
100	1170	9 1/2	16	81
100	1170	9 1/2	16	83
100	1170	9 1/2	16	83
100	1170	9 1/2	15	83
100	1170	9 1/2	15	83
100	1170	9 1/2	15	83
100	1170	9 1/2	15	83

12 V

June 5 Bath

3rd Line out

start June 10 - 12 AM

876 Comp in 5 1/2 hours

Out at June - 12:30 at 1/2 Amp 12 hours

PM

Out 76

Found no remarks anywhere calling  
to attention to state of anode as  
shown by amperes being low  
until anode dropped off

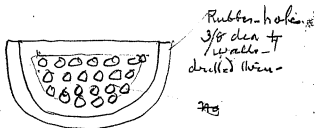
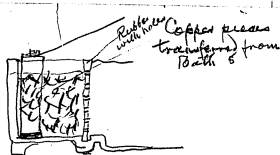
Note amp - anode by night  
didn't hold up 2 disc  
as it goes less & less amp

Anode NG -

Anode rate from support bar  
2-30 PM not plotting

7 <sup>th</sup> 5 Bath 4 <sup>th</sup> Disc in						
Wm 12	PM	Volts	Amps	Temp	Total amp	
3:00	1170	9 1/4	16	83	16	
4:00	1170	9 1/2	15	82	31	
5:00	1170	9 1/2	15	80	46	
6:00	1170	9 1/2	14	82	60	
7:00	1170	9 1/2	14	83	74	
8:00	1170	9 1/2	13	83	87	
9:00	1170	9 1/2	13	83	100	
10:00	1170	9 1/2	14	83	114	
11:00	1170	9 1/2	13	81	127	
12:00	1170	9.5	14	85	141	
1:00	1170	9.5	14	84	155	
2:00	1170	9.5	13	84	168	
3:00	1170	9.5	12 1/2	82	181	
4:00	1170	9.5	13	82	194	
5:00	1170	9.5	13	82	107	
6:00	1170	9.5	12	82	119	
7:00	1170	9.5	12	81	131	
8:00	1170	9.5	10	84	141	
9:00	1170	9.5	10	82	151	
10:00	1170	9.5	10	82	161	
11:00	1170	9.5	10	82	171	
12:00	1175	9.5	10	81	181	
1:00	1175	9.5	10	81	191	
2:00	1175	9.5	10	81	201	
3:00	1175	9.5	5	82	211	

↓  
 Note ampere, Resistance is in  
 lack of more holes -  
 Will make a new rubber  
 Monday with more area  
 of holes: ———



stopped for 15 minutes belt broke  
 at 10.00 am 13 PM  
 worked across the face

June 13	SPG	Volt	Amp	Temp	Total amp
6pm	1175	9-5	19	83	
7:00	1175	9-5	20	83	20
8:00	1175	9-5	20	83	40
9:00	1175	9-5	20	83	60
10:00	1175	9-5	20	80	80
11:00	1175	9-5	21	80	101
12:00	1170	9-5	22	80	123
1:00	1170	9.5	22	80	145
2:00	1170	9.5	22	81	167
3:00	1170	9.5	22	82	189



June 14						Bath No 5	
Time	AM	S.R.G.	Wets	Amph	Temp	Total	
1:00		1170	9.5	22	80	211	
1:00		1170	9.5	22	80	233	
1:00		1170	9.5	22	82	255	
1:00		1170	9.5	22	81	277	
1:00		1175	9.5	21	80	298	
1:00		1170	9.5	21	83	319	
1:00		1170	9.5	21	83	340	
1:00		1170	9.5	21	83	361	
2:00		1170	9.5	21	83	382	
2:00 PM		1175	9.5	21	80	403	
2:00		1175	9.5	21	80	424	
2:00		1175	9.5	21	80	445	
2:00		1175	9.5	21	80	466	
2:00		1175	9.5	21	80	487	
2:00		1175	9.5	21 1/2	86	508	
2:00		1175	9.5	21	83	529	
3:00		1175	9.5	21	83	550	
2:00		1175	9.5	20	83	570	
1:00		1175	9.5	20	82	590	
1:00		1175	9.5	20	82	610	
1:00		1175	9.5	20	80	630	
1:00		1175	9.5	20	80	650	
2:00		1175	9.5	20	80	670	
3:00		1175	9.5	20	80	690	
1:00		1175	9.5	20	80	710	
3:00		1175	9.5	20	86	730	

no 5

<i>Time</i> <i>in</i>	<i>Spk</i>	<i>Temp</i>	<i>Wind</i>	<i>Temp</i>	<i>Total</i>
2:00	1175	9.5	20	80	750
1:00	1175	9.5	20	80	740
6:00	1175	9.5	20	80	790
1:00	1175	9.5	20	83	810
6:00	1175	9.5	20	83	830
1:00	1170	9.5	20	82	856
2:00	1170	9.5	20	81	870

First  
Out  
42 hours

9th 5 2nd in

170 5  
 Elashed with Nickel

8.00 June 15 0 on

added copper prices to Basket  
 brought from 18- to 20

Time	Sp. Am	Setts	Comp	Unit	Total Cu
11:00 AM	1170	9 1/4	19	82	
1:00	1170	9 1/4	18 1/2	81	18
3:00	1170	9-5	18 1/2	81	37
5:00	1170	9-5	18	80	55
7:00	1170	9-5	18	80	73
9:00	1170	9-5	18	80	91
11:00	1170	9-5	18	80	109
1:00 PM	1170	9-5	20	80	129
3:00	1170	9-5	20	83	149
5:00	1170	9-5	20	83	169
7:00	1170	9-5	22	83	191
9:00	1170	9-5	21	80	212
11:00 AM	1170	9.5	20	82	232
1:00	1170	9.5	20	80	252
3:00	1170	9.5	20	80	272
5:00	1170	9.5	20	80	292
7:00	1170	9.5	20	80	312
9:00	1170	9.5	20	80	332
11:00	1170	9.5	20	80	352
1:00 PM	1170	9.5	20	80	372
3:00	1170	9.5	21	83	393
5:00	1170	9.5	21	83	414
7:00	1170	9.5	20	80	434
9:00 AM	1170	9.5	20	80	454
11:00 AM	1170	9.5	19	82	473

June 16

No 5 2nd spec Out

PM	Lat	Wgt	Grp	Temp	Total
2:00	1170	9 1/2	20	82	493
3:00	1170	9 1/4	20	82	513
4:00	1170	9 1/2	20	82	533
5:00	1170	8-5	20	82	553
6:00	1170	9-5	20	82	573
7:00	1170	9-5	19	82	592
8:00	1170	9-5	18	82	610
9:00	1170	9-5	18	83	628
10:00	1170	9-5	18	83	646
11:00	1170	9-5	18	80	664
12:00	1170	9-5	18	81	682

June 17

6:00 AM	1170	9-5	19	80	701
7:00	1170	9-5	19	80	720
8:00	1170	9-5	19	80	739
9:00	1170	9-5	20	80	759
10:00	1170	9-5	19	82	778
11:00	1170	9-5	19	82	797
12:00	1170	9-5	19	81	816
1:00	1170	9-5	19	80	835
2:00	1170	9-5	19	83	854
3:00	1170	9-5	19	83	873

Out

June 17 AM

45 hours

970 5 - 873 Grp. in 45 hours  
about 19 1/2 hr hour

8<sup>th</sup> 5<sup>th</sup> Beth 3<sup>rd</sup> fac  
same mach

June - 17

AM	Sub	Qdts	Comp	Comp	Total	
10:30	1170	9-5	19	83		
11:30	1175	9-5	18 1/2	83	18	
2:00	1175	9-5	18	81	36	Amount off
2:30						on
1:30	1175	9-5	18	81	54	
2:30	1175	9-5	18	82	72	
3:30	1175	9-5	18	82	90	
4:30	1175	9-5	18	82	108	
5:30	1175	9-5	18	82	126	
6:30	1175	9-5	18	82	144	
7:30	1175	9-5	18	82	162	
8:30	1175	9-5	18	82	180	
9:30	1175	9-5	18	82	198	
10:30	1175	9-5	18	82	216	
11:30	1175	9-5	18	82	234	
12:30	1175	9-5	19	80	253	
June 18						
1:30	1175	9-5	18	80	271	
2:30	1175	9-5	18	80	289	
3:30	1175	9-5	18	82	307	
4:30	1175	9-5	19	80	326	
5:30	1175	9-5	20	80	346	
6:30	1175	9-5	20	80	366	
7:30	1175	9-5	20	82	386	
8:30	1175	9-5	20	83	406	
22						

7/5 5

B. Disc  
same basket

June 18

AM	Slw	Orth	Camp	Camp	Hotel
9:30	1175	9-5	20	83	426
9:30	1175	9-5	20	83	446
1:30	1175	9-5	19	83	465
2:30	1175	9-5	19	83	484
1:30	1175	9-5	19	83	503
2:30	1175	9-5	18	83	521
3:30	1175	9-5	18	84	539
4:30	1175	9-5	18	84	557
5:30	1175	9-5	18	83	575
6:30	1175	9-5	18	83	593
7:30	1175	9-5	17	83	610
8:30	1175	9-5	17	83	627
9:30	1175	9-5	17	83	644
10:30	1175	9-5	17	83	661
1:30	1175	9-5	17	80	679
2:30	1175	9-5	18	80	696
3:30	1175	9-5	18	80	714
4:30	1175	9-5	17	80	731
5:30	1175	9-5	18	80	749
6:30	1175	9-5	18	80	767
7:30	1175	9-5	18	80	785
8:30	1175	9-5	18	80	803
9:30	1175	9-5	18	81	821
10:30	1175	9-5	18	82	839

		905		8 <sup>44</sup> 5 <sup>12</sup> same as rock	
June 19					
AM	Ln	Costs	Camp	Camp	Total
936	1175	9 1/4	18	83	857
10:00	1175	9 1/4	18	83	866
					Out
					47 1/2 hours
					18 1/2 Camp on here

June 22-10-30 Grade Chambers  
filled up with copper piece

No 5 Bath 4th Line in

ONE 22 10-30	Shr	Rolls	Comp	Temp	Detail
1175	9 1/2	17	83		
1175	9 1/2	17	83	17	
1175	9 1/2	17	80		34
1175	9 1/2	17	80		57
1175	9 1/2	17	80		68
1175	9 1/2	17	80		85
1175	9 1/2	17	80		102
1175	9 1/2	17	81		119
1175	9 1/2	17	81		136
1175	9 1/2	17	83		153
1175	9-5	17	83		170
1175	9-5	17	83		187
1175	9-5	17	83		204
1175	9-5	17	82		221
1175	9.5	17 1/2	83		238
1175	9.5	17 1/2	83		256
1175	9.5	18	83		273
1175	9.5	18	83		291
1175	9.5	18	83		309
1175	9.5	18	83		327
1175	9.5	18	83		345
1175	9.5	18	83		363
1175	9.5	18	83		381
1175	9.5	18	84		399



20-5 Beth 4th line

JUNE	Shn	Rolls	Comp	Temp	Wet
11:30	1170	9 1/2	19	84	417
2:30	1170	9 1/2	19	84	436
14 June 24					
3:0	1170	9 1/2	19	80	455
4:30	1170	9 1/2	19	80	474
5:30	1170	9 1/2	18 1/2	80	472
6:30	1170	9 1/2	19	80	511
7:30	1170	9 1/2	19	80	530
8:30	1170	9 1/2	19	80	549
9:30	1170	9 1/2	19	80	568
10:30	1170	9 1/2	19	82	587
11:30	1170	9 1/2	20	83	667
12:30	1170	9 1/2	19	83	626
1:30	1170	9 1/2	19	83	645
2:30	1170	9 1/2	19	83	664
3:30	1170	9 1/2	18	83	682
4:30	1170	9-5	19	83	700
5:30	1170	9-5	19	83	719
6:30	1170	9-5	19	80	738
7:30	1170	9-5	18 1/2	80	757
8:30	1170	9-5	17 1/2	80	775
9:30	1170	9-5	17 1/2	80	793
10:30	1170	9-5	17 1/2	83	810
11:30	1170	9-5	17	83	827
12:30	1170	9-5	17	83	844

over

In June 22-11-30-PM

W 5 Bath 4 1/2 size amp Cond

861 Amp in 48 hours

at 18 Amp per hour

Out June 24-11-30

JUNE

24

PM

~~1130~~

1130

Len

1170

Volts

9 1/2

Amp

17

Amp

83

Total

861

Out

Amp

W 5 Bath 4 1/2 size.

Bath No 6 - 5th Dec

June 25<sup>th</sup>

AM	Sec.	Sols	amp	Conf	
10:30	1175	9-5	15	82	
11:30	1175	9-5	16	82	16
12:30	1170	9-5	17	80	33
1:30	1170	9-5	17	80	50
2:30	1170	9-5	17	80	67
3:30	1170	9-5	17	80	84
4:30	1170	9-5	17	80	101
5:30	1170	9-5	17	80	118
6:30	1170	9-5	17	80	135
7:30	1170	9-5	17	80	152
8:30	1170	9-5	16 1/4	80	168
9:30	1170	9-5	16 1/2	82	185
10:30	1170	9-5	17	82	202
11:30	1170	9-5	17	80	219
12:30	1170	9-5	17	82	236
1:30	1170	9-5	17	83	253
2:30	1170	9-5	16 1/2	83	269
3:30	1170	9-5	16 1/2	83	286
4:30	1170	9-5	16	83	302
5:30	1170	9-5	16	82	318
6:30	1170	9-5	16	82	334
7:30	1170	9-5	16	83	350
8:30	1170	9-5	15	83	365
9:30	1170	9-5	15	83	380
10:30	1170	9-5	16	83	396

# Bath No 5

5 disc  
in

Spec Bath amp Temp

11-30	1170	9-5	16	83	412
12-30	1170	9-5	16	83	428
1-00	1170	9-5	16	80	444
2-00	1170	9-5	16	80	460
3-00	1170	9-5	16	83	476
4-00	1170	9-5	16	83	492
5-00	1170	9-5	16	80	508
6-00	1170	9-5	16	80	524
7-00	1170	9-5	16	83	540
8-00	1170	9-5	16	83	555
9-00	1170	9-5	16	83	571
10-00	1170	9-5	16	83	586
11-00	1170	9-5	16	83	602
12-00	1170	9-5	16	81	618
AM June 24					
1-00	1170	9-5	16	81	634
2-00	1170	9-5	16	80	650
3-00	1170	9-5	16	81	666
4-00	1170	9-5	16	81	682
5-00	1170	9-5	16	81	698
6-00	1170	9-5	16	81	714
7-00	1170	9-5	16	81	730
8-00	1170	9-5	16	81	746
9-00	1170	9-5	16	83	762
10-00	1170	9-5	16	83	778
11-00	1170	9-5	16	83	794

Bath 745-

5<sup>th</sup> disc  
Out

Time	Sec	With Amp	Temp	Total
27 PM				
1260	1170	9-5	16	83 810
1.00	1170	9-5	16	83 826
2.00	1170	9-5	16	83 842
3.00	1170	9-5	16	83 858
3.30	1170	9-5	16	83 866
Out				53 1/2 hours
				16 Amp 2.5 hours

No 5 Bath 6<sup>th</sup> Disc in  
 Transferred # 6<sup>th</sup> disc to #3 tank

Time	Sec	Volts	Amps	Amps	Watt
6:00	1170	9 1/2	15 1/2	83	
6:00	1170	9-5	16	83	16
7:00	1170	9-5	16	83	32
8:00	1170	9-5	16	83	48
9:00	1170	9-5	16 1/2	81	64.5
10:00	1170	9-5	16 1/2	81	81
11:00	1170	9-5	17	81	98
12:00	1170	9-5	17	80	115
A.M. June 28					
1:00	1170	9-5	17	80	132
2:00	1170	9-5	17	80	149
3:00	1170	9-5	16	81	165
4:00	1170	9-5	16	81	181
5:00	1170	9-5	16	81	197
6:00	1170	9-5	16	81	213
7:00	1170	9-5	16	82	229
8:00	1170	9-5	15 1/2	82	244
9:00	1170	9-5	15	81	259
10:00	1170	9-5	15	81	274
11:00	1170	9-5	15	83	289
12:00	1170	9-5	15	83	304
1:00	1175	9-5	14	80	318
2:00	1175	9-5	14.5	83	332
3:00	1175	9-5	17.5	81	349
4:00	1150	9-5	17.5	82	366

3 P.M.  
 Transfer to  
 #3 tank.  
 Low Amps.

#5 Bath

6<sup>th</sup> discTransferred to #3 Bath, acct low  
amps

Date	Sp. Gr.	Volta	Amp.	Temp.	Total	%
May 25, 70.						
8 PM	1165	9-5	18.5	78	394	
6 "	1165	9-5	18.5	80	413	
7 "	1165	9-5	19	80	431	
8 "	1165	9-5	19-5	80	450	
9 "	1165	9-5	16	80	466	
10 "	1165	9-5	16	80	482	
11 "	1165	9-5	15 1/2	80	498	
12 "	1165	9-5	16	80	514	
1 PM	Transferred					
12 PM	1165	9-5	16	81	530	
5 PM	1165	9-5	16	81	546	
8 PM	1165	9-5	16	82	562	
11 PM	1165	9-5	16	82	578	
5 PM	1165	9-5	16	81	594	
6 PM	1165	9-5	16	81	610	
7 PM	1165	9-5	16 1/2	82	626	
8 PM	1165	9-5	16 1/2	82	643	
9 PM	1165	9-5	17	87	660	
10 "	1165	9-5	16	86	676	at 1015 Volta
11 "	1165	10	17	90	693	raised 15 point
12 PM	1165	10	17.5	86	710	
1 PM	1165	10	17	90	727	
2 "	1165	10	16.5	90	744	
3 "	1165	10	16.5	90	760	
4 "	1165	10	16.5	88	777	

#5 Bath

6<sup>th</sup> disc.

Transferred to #3 Bath with low amp.

Time	Sp. Res.	V <sub>plate</sub>	Amps	Temp	Total	177
5 PM	1165	10	16.5	87	793	
6 "	1165	10	16.5	85	810	
7 "	1165	10	16.5	85	826	
8 "	1165	10	16	85	842	
9 "	1165	10	16	85	858	
10 "						

Out

#5 Bath #6 disc -

Transferred to #3 Bath  
account low amps. Bottom of bath  
some crystalline anode slumber.

Start June 27. 20. 5 P.M.

Finish " 28. 20. 9 P.M.

Total Amps = 858

Hours = 52

Average Amps = 16.5



#5 Bath  
Start June 8, 10.

#7 disc.  
after checking out prestate  
bath, anode chamber put  
back old prestate anode after  
washing same.

Plate	Sp. br.	Volta	Amper	Temp	Total
100	1165	9.5	15	80	
50	1165	9.5	16	78	16
60	1165	9.5	17	80	33
70	1165	9.5	16	80	49
80	1165	9.5	16	80	65
90	1165	9.5	16.5	80	81
100	1165	9.5	16.5	80	98
110	1165	9.5	16.5	80	114
120	1165	7.5	16.5	80	131
130	1165	9.5	16.5	81	147
140	1165	9.5	16.5	81	164
150	1165	9.5	16.5	82	180
160	1165	9.5	16.5	82	197
170	1165	9.5	16.5	81	213
180	1165	9.5	16	80	227
190	1165	9.5	16	82	243
200	1165	9.5	16.5	82	262
210	1165	9.5	16.5	87	278
220	1165	9.5	16.5	86	294
230	1165	10	17	90	311
240	1165	10	18	88	329
250	1165	10	17	90	346
260	1165	10	17.5	90	363
270	1165	10	17.5	90	380

Raised 1/2 v. at 105.500

#5 Bath

#7 lease  
after cleaning out crystals  
and inside chamber, put back old  
series anode, after washing down

Pressure	Sp. Kin	Volts	Amp	Temp	Total
4 PM	1165	10	17	88	397
5 "	1165	10	17.5	87	414
6 "	1165	10	17.5	85	432
7 "	1165	10	17.5	85	449
8 "	1165	10	17	85	466
9 "	1165	10	16.5	85	483
10	1165	10	16.5	85	499
11	1165	10	16	85	505
2200	1165	10	16	83	521
11 AM	guno	30			
1700	1165	10	17	82	538
2000	1165	10	17	82	555
3000	1165	10	17	82	572
4000	1165	10	16	81	588
5000	1165	10	15.5	81	604
6000	1165	10	17	81	621
7000	1165	10	17	81	638
8000	1165	10	16	81	654
9 AM	1165	10	16	80	670
10	1165	10	16	82	686
11	1165	10	16	83	702
12	1165	10	16	80	718
1 PM	1165	10	16	85	734
2	1165	10	16	82	750
3	1165	10	16	81	766

$$\begin{array}{r}
 52.5 \overline{) 261.4} \quad (16.4 \\
 \underline{52.5} \phantom{.0} \\
 336.0 \\
 \underline{336.0} \\
 0.0
 \end{array}$$

~~$$\begin{array}{r}
 52.5 \overline{) 261.4} \quad (16.4 \\
 \underline{52.5} \phantom{.0} \\
 336.0 \\
 \underline{336.0} \\
 0.0
 \end{array}$$~~

#5 Bath      #7 Xena  
 Start      4:30  
 Finish      9:14  
 Total Amp. = 861  
 Average Amp. = 52½  
 Average Amp. = 16.4

#5 Bath

30.20

4:14 1165

5- 1165

6- 1165

7- 1165

8- 1165

9:14 1165

#7 disc, after clearing  
 out system and smoke  
 but hold pers. awake after  
 crashing same.

Voltage	Amps	Temp	Total
16	16	80	782
10	16.5	80	798
10	16	80	814
10	16	80	830
10	16	80	846
10	15	80	861

Out

Thin Copper strap  
fired anode -  
Wash rag screen

Wash rag, white color  
about 4 mesh,

W 5 Bath 1st Line in

JULY	Sh	Volts	Imp	Imp	Wet
3 PM	1165	9-5	16	80	
100	1165	9-5	16	80	16
200	JULY	4th			
300	1165	9-5	16	80	32
400	1165	9-5	18	80	40
500	1165	9-5	18	83	50
600	1165	9-5	18	83	60
700	1165	9-5	18	83	70
800	1165	9-5	18	83	80
900	1165	9-5	18	84	90
1000	1165	9-5	18	84	100
1100	1165	9-5	18	84	110
1200	1165	9-5	18	84	120
1300	1165	9-5	18	84	130
1400	1165	9-5	18	84	140
1500	1165	9-5	18	84	150
1600	1165	9-5	18	84	160
1700	1165	9-5	18	84	170
1800	1165	9-5	18	84	180
1900	1165	9-5	18	84	190
2000	1165	9-5	18	84	200
2100	1165	9-5	18	84	210
2200	1165	9-5	18	84	220
2300	1165	9-5	18	84	230
2400	1165	9-5	18	84	240
2500	1165	9-5	18	84	250
2600	1165	9-5	18	84	260
2700	1165	9-5	18	84	270
2800	1165	9-5	18	84	280
2900	1165	9-5	18	84	290
3000	1165	9-5	18	84	300
3100	1165	9-5	18	84	310
3200	1165	9-5	18	84	320
3300	1165	9-5	18	84	330
3400	1165	9-5	18	84	340
3500	1165	9-5	18	84	350
3600	1165	9-5	18	84	360
3700	1165	9-5	18	84	370
3800	1165	9-5	18	84	380
3900	1165	9-5	18	84	390
4000	1165	9-5	18	84	400

Not a much on

Cleaned up 041  
Outside Gal. pan. = 0.52  
inside do " " = 0.1

Rin-Hol to 745 Amps.

46 | 765 @ 16.5  
 $\begin{array}{r} 765 \\ - 300 \\ \hline 465 \end{array}$   
 $\begin{array}{r} 465 \\ - 240 \\ \hline 225 \end{array}$

after cleaning inside free from grease & oil.  
Not turned

Bath to 5 765 amper  
4.1 hrs plating

Gal. 153 outside least,

Re-start 1070 #5 Bath

Start July 3, 20, 11 PM. #1 disc

Finished July 5, 20, 9 PM.

Total Amps 765

" hours 46

Average Amps 16.5

#5 Bath 1st line in

JULY	Sh	Volts	Amps	Temp	Hold	
11:00	1165	9-5	16.5	81	413	not a rest in
12:00	1165	9-5	16.5	81	430	
1:00	1165	9-5	16.5	81	446	
2:00	1165	9-5	16.5	81	463	
3:00	1165	9-5	16	81	479	
4:00	1165	9-5	15.5	81	494	
5:00	1165	9-5	15.5	81	510	
6:00	1165	9-5	15.5	81	525	
7:00	1165	9-5	15.5	81	541	
8:00	1165	9-5	15.5	81	556	
9:00	1165	9-5	15.5	81	572	
10:00	1165	9-5	16	81	588	
11:00	1165	9-5	16	81	604	
12:00	1165	9-5	16 1/2	81	620	
1:00	1165	9-5	16	81	636	
2:00	1165	9-5	15.5	81	652	
3:00	1165	9-5	16	81	668	
4:00	1165	9-5	16	81	684	
5:00	1165	9-5	16	81	700	
6:00	1165	9-5	16	81	716	
7:00	1165	9-5	16 1/2	81	732	not a rest in
8:00	1165	9-5	16 1/2	81	749	
9:00	1165	9-5	16 1/2	81	765	5.1 hr
					46 hrs	

Mounted in 105 edge was  
rounded off

Hiso, revolve 1 1/2 R.P.M.

Added 500 general bath dope to  
plating solution 11<sup>th</sup> July 7

July 6 Bath No 5- 2 divisions

	Spec-	Bolts	amps	Temp	Time
2-30	1165	9-5	14	80	
3-30	1165	9-5	14	80	14
4-30	1165	9-5	15	83	24
5-30	1165	9-5	16	83	45
6-30	1165	9-5	16	83	61
7-30	1165	9-5	16-5	84	77
8-30	1165	9-5	16-5	84	94
9-30	1165	9-5	16	84	110
10-30	1165	9-5	16	84	126
11-30	1165	7-5	15-5	84	142
12-30	1165	7-5	15-5	84	158
AM	July 7 <sup>th</sup>				
1-30	1165	7-5	15-5	84	174
2-30	1165	7-5	15-5	84	190
3-30	1165	7-5	15-5	84	206
4-30	1165	7-5	15-5	84	222
5-30	1165	7-5	15-5	84	238
6-30	1165	7-5	15-5	84	254
7-30	1165	7-5	15-5	84	270
8-30	1165	7-5	15	85	286
9-30	1165	7-5	15	85	302
10-30	1165	7-5	15	85	318
11-30	1165	7-5	15	83	334
12-30	1165	7-5	15	82	350
1-30 <sup>PM</sup>	1165	7-5	14.5	82	367

#5 Bath

2 and 1/2 min

Volts	Sp. gr.	Volts	Amps	Temp	Total
2.30	1165	9.5	15	83	372
3.30	1165	9.5	15	84	387
4.30	1165	9.5	15	85	402
5.30	1165	9.5	15	85	417
6.30	1165	9.5	15	84	432
7.30	1165	9.5	15	84	447
8.30	1165	9.5	15	83	462
9.30	1165	9.5	14.5	83	476
11.30	1165	9.5	15	82	491
11.30	1165	9.5	15	82	506
12.30	1165	9.5	15	82	521
AM	1165	9.5	15	82	536
1.30	1165	9.5	15	82	551
2.30	1165	9.5	15	82	566
3.30	1165	9.5	15	82	581
4.30	1165	9.5	15	82	596
5.30	1165	9.5	15	82	611
6.30	1165	9.5	14.5	82	626
7.30	1165	9.5	15	82	641
8.30	1165	9.5	15	82	656
9.30	1165	9.5	16	80	671
10.30	1165	9.5	15.5	80	686
11.30	1165	9.5	15	82	701
12.30	1165	9.5	14.5	82	716
1.30	1165	9.5	14.5	82	731
2.30	1165	9.5	14.5	82	746
3.30	1165	9.5	14.5	82	761
4.30	1165	9.5	14.5	82	776
5.30	1165	9.5	14.5	82	791
6.30	1165	9.5	14.5	82	806
7.30	1165	9.5	14.5	82	821
8.30	1165	9.5	14.5	82	836
9.30	1165	9.5	14.5	82	851
10.30	1165	9.5	14.5	82	866
11.30	1165	9.5	14.5	82	881
12.30	1165	9.5	14.5	82	896
1.30	1165	9.5	14.5	82	911
2.30	1165	9.5	14.5	82	926
3.30	1165	9.5	14.5	82	941
4.30	1165	9.5	14.5	82	956
5.30	1165	9.5	14.5	82	971
6.30	1165	9.5	14.5	82	986
7.30	1165	9.5	14.5	82	1001
8.30	1165	9.5	14.5	82	1016
9.30	1165	9.5	14.5	82	1031
10.30	1165	9.5	14.5	82	1046
11.30	1165	9.5	14.5	82	1061
12.30	1165	9.5	14.5	82	1076
1.30	1165	9.5	14.5	82	1091
2.30	1165	9.5	14.5	82	1106
3.30	1165	9.5	14.5	82	1121
4.30	1165	9.5	14.5	82	1136
5.30	1165	9.5	14.5	82	1151
6.30	1165	9.5	14.5	82	1166
7.30	1165	9.5	14.5	82	1181
8.30	1165	9.5	14.5	82	1196
9.30	1165	9.5	14.5	82	1211
10.30	1165	9.5	14.5	82	1226
11.30	1165	9.5	14.5	82	1241
12.30	1165	9.5	14.5	82	1256
1.30	1165	9.5	14.5	82	1271
2.30	1165	9.5	14.5	82	1286
3.30	1165	9.5	14.5	82	1301
4.30	1165	9.5	14.5	82	1316
5.30	1165	9.5	14.5	82	1331
6.30	1165	9.5	14.5	82	1346
7.30	1165	9.5	14.5	82	1361
8.30	1165	9.5	14.5	82	1376
9.30	1165	9.5	14.5	82	1391
10.30	1165	9.5	14.5	82	1406
11.30	1165	9.5	14.5	82	1421
12.30	1165	9.5	14.5	82	1436
1.30	1165	9.5	14.5	82	1451
2.30	1165	9.5	14.5	82	1466
3.30	1165	9.5	14.5	82	1481
4.30	1165	9.5	14.5	82	1496
5.30	1165	9.5	14.5	82	1511
6.30	1165	9.5	14.5	82	1526
7.30	1165	9.5	14.5	82	1541
8.30	1165	9.5	14.5	82	1556
9.30	1165	9.5	14.5	82	1571
10.30	1165	9.5	14.5	82	1586
11.30	1165	9.5	14.5	82	1601
12.30	1165	9.5	14.5	82	1616
1.30	1165	9.5	14.5	82	1631
2.30	1165	9.5	14.5	82	1646
3.30	1165	9.5	14.5	82	1661
4.30	1165	9.5	14.5	82	1676
5.30	1165	9.5	14.5	82	1691
6.30	1165	9.5	14.5	82	1706
7.30	1165	9.5	14.5	82	1721
8.30	1165	9.5	14.5	82	1736
9.30	1165	9.5	14.5	82	1751
10.30	1165	9.5	14.5	82	1766
11.30	1165	9.5	14.5	82	1781
12.30	1165	9.5	14.5	82	1796
1.30	1165	9.5	14.5	82	1811
2.30	1165	9.5	14.5	82	1826
3.30	1165	9.5	14.5	82	1841
4.30	1165	9.5	14.5	82	1856
5.30	1165	9.5	14.5	82	1871
6.30	1165	9.5	14.5	82	1886
7.30	1165	9.5	14.5	82	1901
8.30	1165	9.5	14.5	82	1916
9.30	1165	9.5	14.5	82	1931
10.30	1165	9.5	14.5	82	1946
11.30	1165	9.5	14.5	82	1961
12.30	1165	9.5	14.5	82	1976
1.30	1165	9.5	14.5	82	1991
2.30	1165	9.5	14.5	82	2006
3.30	1165	9.5	14.5	82	2021
4.30	1165	9.5	14.5	82	2036
5.30	1165	9.5	14.5	82	2051
6.30	1165	9.5	14.5	82	2066
7.30	1165	9.5	14.5	82	2081
8.30	1165	9.5	14.5	82	2096
9.30	1165	9.5	14.5	82	2111
10.30	1165	9.5	14.5	82	2126
11.30	1165	9.5	14.5	82	2141
12.30	1165	9.5	14.5	82	2156
1.30	1165	9.5	14.5	82	2171
2.30	1165	9.5	14.5	82	2186
3.30	1165	9.5	14.5	82	2201
4.30	1165	9.5	14.5	82	2216
5.30	1165	9.5	14.5	82	2231
6.30	1165	9.5	14.5	82	2246
7.30	1165	9.5	14.5	82	2261
8.30	1165	9.5	14.5	82	2276
9.30	1165	9.5	14.5	82	2291
10.30	1165	9.5	14.5	82	2306
11.30	1165	9.5	14.5	82	2321
12.30	1165	9.5	14.5	82	2336
1.30	1165	9.5	14.5	82	2351
2.30	1165	9.5	14.5	82	2366
3.30	1165	9.5	14.5	82	2381
4.30	1165	9.5	14.5	82	2396
5.30	1165	9.5	14.5	82	2411
6.30	1165	9.5	14.5	82	2426
7.30	1165	9.5	14.5	82	2441
8.30	1165	9.5	14.5	82	2456
9.30	1165	9.5	14.5	82	2471
10.30	1165	9.5	14.5	82	2486
11.30	1165	9.5	14.5	82	2501
12.30	1165	9.5	14.5	82	2516
1.30	1165	9.5	14.5	82	2531
2.30	1165	9.5	14.5	82	2546
3.30	1165	9.5	14.5	82	2561
4.30	1165	9.5	14.5	82	2576
5.30	1165	9.5	14.5	82	2591
6.30	1165	9.5	14.5	82	2606
7.30	1165	9.5	14.5	82	2621
8.30	1165	9.5	14.5	82	2636
9.30	1165	9.5	14.5	82	2651
10.30	1165	9.5	14.5	82	2666
11.30	1165	9.5	14.5	82	2681
12.30	1165	9.5	14.5	82	2696
1.30	1165	9.5	14.5	82	2711
2.30	1165	9.5	14.5	82	2726
3.30	1165	9.5	14.5	82	2741
4.30	1165	9.5	14.5	82	2756
5.30	1165	9.5	14.5	82	2771
6.30	1165	9.5	14.5	82	2786
7.30	1165	9.5	14.5	82	2801
8.30	1165	9.5	14.5	82	2816
9.30	1165	9.5	14.5	82	2831
10.30	1165	9.5	14.5	82	2846
11.30	1165	9.5	14.5	82	2861
12.30	1165	9.5	14.5	82	2876
1.30	1165	9.5	14.5	82	2891
2.30	1165	9.5	14.5	82	2906
3.30	1165	9.5	14.5	82	2921
4.30	1165	9.5	14.5	82	2936
5.30	1165	9.5	14.5	82	2951
6.30	1165	9.5	14.5	82	2966
7.30	1165	9.5	14.5	82	2981
8.30	1165	9.5	14.5	82	2996
9.30	1165	9.5	14.5	82	3011
10.30	1165	9.5	14.5	82	3026
11.30	1165	9.5	14.5	82	3041
12.30	1165	9.5	14.5	82	3056
1.30	1165	9.5	14.5	82	3071
2.30	1165	9.5	14.5	82	3086
3.30	1165	9.5	14.5	82	3101
4.30	1165	9.5	14.5	82	3116
5.30	1165	9.5	14.5	82	3131
6.30	1165	9.5	14.5	82	3146
7.30	1165	9.5	14.5	82	3161
8.30	1165	9.5	14.5	82	3176
9.30	1165	9.5	14.5	82	3191
10.30	1165	9.5	14.5	82	3206
11.30	1165	9.5	14.5	82	3221
12.30	1165	9.5	14.5	82	3236
1.30	1165	9.5	14.5	82	3251
2.30	1165	9.5	14.5	82	3266
3.30	1165	9.5	14.5	82	3281
4.30	1165	9.5	14.5	82	3296
5.30	1165	9.5	14.5	82	3311
6.30	1165	9.5	14.5	82	3326
7.30	1165	9.5	14.5	82	3341
8.30	1165	9.5	14.5	82	3356
9.30	1165	9.5	14.5	82	3371
10.30	1165	9.5	14.5	82	3386
11.30	1165	9.5	14.5	82	3401
12.30	1165	9.5	14.5	82	3416
1.30	1165	9.5	14.5	82	3431
2.30	1165	9.5	14.5	82	3446
3.30	1165	9.5	14.5	82	3461
4.30	1165	9.5	14.5	82	3476
5.30	1165	9.5	14.5	82	3491
6.30	1165	9.5	14.5	82	3506
7.30	1165	9.5	14.5	82	3521
8.30	1165	9.5	14.5	82	3536
9.30	1165	9.5	14.5	82	3551
10.30	1165	9.5	14.5	82	3566
11.30	1165	9.5	14.5	82	3581
12.30	11				

49 | 745 (15.2)  
 49  
 2.55  
 2.55  
 100

#5 Bath 2nd disc.

Mould Edge was rounded off.  
 Also added 500 general bath to the pot.  
 Start. July 6, 20-- 2:30 PM.  
 Finish July 8, 20-- 3:30 PM.  
 Total Amp. 745  
 " hours 49  
 Average A/p 15.2

#5 Bath  
 July 8, 20.  

Volts	Sp. Gr.	Volt	Amp	Time	Total
2.55	11.65	9.5	14.5	80	730
3.30	11.65	9.5	14.5	80	745

2nd disc.

Out to make  
 room for disc.  
 which was not  
 sorted.



Disc was suspended by wire  
into copper bath  
Rubber coated

Remarks: 6 holes in disc  
which plated.

#5 Bath 3rd disc.  
Start July 8, 20, 33° PM.  
Plate Sp. Vol. Volt. Amp. Temp. Time  
1165 9.5 10.5 80  
1165 9.5 13.5 80 13. Out

Rotated 30 minutes with  
60 cc. Rubber cement, from  
Combination Rubber Co..  
Plate at 56 R.P.M.  
Ran to 600 Amp. then give to  
Mr. Edison for record with rubber the,  
on back of disc.

added 10" gal. bath soap to  
copper plate sol. at 11:55 July 9.

# #5 Bath

Plate

Start July 8, 20, 5:12 PM.						Remarks
Plate	Sp. Gr.	Volt	Amps	Temp.	Total	
5:12 PM	1165	9.5	14.5	80		Test for denser on back of plate.
6:12	1165	9.5	14.5	81	14	
7:12	1165	9.5	14.5	80	29	
8:12	1165	9.5	14.5	80	43	
9:12	1165	9.5	14.5	80	58	
10:10	1165	9.5	14	80	72	
11:12	1165	9.5	14	80	86	
12:10	1165	9.5	14	80	100	
AM July 9						
1:11	1165	9.5	14	80		
2:12	1165	9.5	14	80		
3:12	1165	9.5	14	80		
4:12	1165	9.5	14	80		
5:12	1165	9.5	14	80		
6:12	1165	9.5	14.5	80		
7:10	1165	9.5	14.5	80		
8:10	1165	9.5	14	80		
9:10	1165	9.5	14.5	78		
10:10	1165	9.5	15	79	242	Added water up
11:12	1171	9.5	15.5	80	255	
12:10	1165	9.5	15.5	80	273	
1:12	1165	9.5	15.5	82	284	
2:10	1165	9.5	15.5	81	304	
3:10	1165	9.5	15.5	81	320	
4:10	1165	9.5	15.5	80	336	
23 hrs.						

41 | 609 | 14.8  
 41 | 41 |  
 169  
 350  
 328

Start July 9, 20 - 5:10 PM.  
 Finish " 10, 20 - 10 AM.  
 Total Amps 609  
 " books 41  
 Average Amps 14.8

# #5 Bath

4" dies  
 60 EE Rubber

Time	Sp. Pr.	Volts	Amps	Temp	Total	Remarks
July 9, 20.						
5:10	116.5	9.5	15.5	80	351	Test for books
6:10	116.5	9.5	15.5	80	367	on back of die
7:10	116.5	9.5	15.5	80	382	Test #2
8:10	116.5	9.5	15.5	80	398	
9:10	116.5	9.5	15	80	413	
10:10	116.5	9.5	15	80	428	
11:10	116.5	9.5	15	80		
12:10	116.5	9.5	15	80		
July 10, 20.						
1:10	116.5	9.5	15	80		
2:10	116.5	9.5	15	80		
3:10	116.5	9.5	15	80		
4:10	116.5	9.5	15	80		
5:10	116.5	9.5	15	80		
6:10	116.5	9.5	15	80		
7:10	116.5	9.5	15	80		
8:10	116.5	9.5	15	80		
9:10	116.5	9.5	15	80		
10:10	116.5	9.5	16	80		

609 - Take out for  
 Mr. Edson inspection  
 to take off books

60 cc Rutter Coated Zinc 2nd time  
in stand at 1:00 PM July 10, 20  
for 750 Amp

# 7745 Bath

JULY	Slb	Volts	Amp	Amp	Notes
10 PM	1165	9-5	14	80	
1:00	1165	9-5	14	80	14
2:00	1165	9-5	15	80	29
3:00	1165	9-5	15.5	80	44
4:00	1165	9-5	16	80	60
5	1165	9-5	15.5	80	76
6	1165	9-5	15-5	80	91
7	1165	9-5	15-5	80	106
8	1165	9-5	15-5	80	122
9	1165	9-5	15-5	80	137
10	1165	9-5	15-5	80	153
11	1165	9-5	16	80	169
12	1165	9-5	16	80	185
AM	July	11, 20			
1:00	1165	7-5	16	80	201
2:00	1165	7-5	15-5	80	217
3:00	1165	7-5	15-5	80	233
4:00	1165	7-5	15-5	80	249
5:00	1165	7-5	15-5	80	265
6:00	1165	7-5	15	80	281
7:00	1165	7-5	15	80	297
8:00	1165	7-5	15	80	313
9:00	1165	7-5	16	80	329
10	1165	7-5	18	80	345
11	1165	7-5	16-5	80	361
12	1165	7-5	16-5	80	377
PM					

10:00 AM Put in more scrap pieces

He 5 Bath 60<sup>cc</sup> Bullen Co.

July	Ln	Vol	Am	Wt
11 PM				
1:00	1165	9-5	16-5	86
2:00	1165	9-5	16-5	80
3	1165	9-5	17	80
4	1165	9-5	17	80
5	1165	9-5	17	80
6	1165	9-5	17-5	81
7	1165	9-5	17-5	81
8	1165	9-5	17-5	81
9	1165	9-5	17-5	81
10	1165	9-5	17-5	81
11	1165	9-5	17-5	81
12	1165	9-5	17-5	81
AM	Suby	12		
1:00	1165	9-5	17	81
2:00	1165	9-5	17	81
3:00	1165	9-5	17	81
4:00	1165	9-5	17	81
5:00	1165	9-5	17	81
6:00	1165	9-5	17	81
7:00	1165	9-5	17	81
8	1165	9-5	17	81
9	1165	9-5	17	81
10	1165	9-5	17	81
11	1165	9-5	17	81
12	1165	9-5	17-5	80

50 | 806 | 16.  
 50  
 306

60 °C Rubber coated  
 disc.

Start July 10, 20 at 1 P.M.  
 Finish " 12, " " 2:30"  
 Total Amps 806  
 " heart 50  
 Average Amps 16.1

#5 Bath

60 °C Rubber  
 coated disc

July 12, 20	Sp	Gr	V.F.	Amp	Temp	Total
1 P.M.	165	95	175	80	182	
2	1165	95	17	80	799	
2:30	1165	95	17	80	806	Out

15.5 Amps Ni Plated

Put in dry, Copper

Gradually to 3.6 Amps at the  
9th slots, then full current.

#5 Bath

Started July 12, 20. 3 P.M.

Time	Sp. Wt.	Volts	Amps	Temp.	Wt. L.
3 P.M.	1165	9.5	17.5		
4	1170	9.5	17.5	80	18
5	1165	9.5	19.	80	37
6	1165	9.5	18.5	80	55
7	1165	9.5	17.5	80	73
8	1165	9.5	17.5	80	90
9	1165	9.5	17.5	81	108
10	1165	9.5	18.	83	126
11	1165	7.5	18.	83	144
12	1165	7.5	17.5	83	161
July 13, 20.					
1 P.M.	1165	9.5	14	81	171
2.00	1165	7.5	14	81	185
3.00	1165	7.5	16.5	81	200
4.00	1165	9.5	16.5	81	215
5.00	1165	7.5	16.5	81	230
6.00	1165	9.5	16.5	81	245
7.00	1165	7.5	16	82	260
8.00	1165	7.5	16	82	275
9.00	1165	9.5	17.	82	310
10.00	1165	9.5	16.5	82	327
11.00	1165	9.5	16.5	83	341
12	1165	9.5	16.5	83	358
1 P.M.	1165	9.5	17.5	83	375
2.00	1165	9.5	17	85	392

43) 718  
 12 x 2  
 200  
 200  
 301  
 16.7

Start  
 Finish  
 To Cal. Amps 718  
 " " 43  
 Average Amp 167

# #5 Bath.

July 13 24.

Time	Sp. R.	Volt	Amp	Time	Sp. R.
3:00 PM	1165	9.5	16.5	8.5	409
4 —	1165	9.5	16.5	8.5	406
5	1165	9.5	16	8.5	442
6	1165	9.5	17	80	459
7	1165	9.5	17	80	476
8	1165	9.5	16.5	85	472
9	1165	9.5	16.5	84	529
10	1165	9.5	16.5	84	525
11	1165	9.5	17	83	542
12	1165	9.5	17	83	559
ATM	1165	9.5	16	83	575
1:00	1165	9.5	16	83	575
2:00	1165	9.5	16	83	575
3:00	1165	9.5	16	83	575
4:00	1165	9.5	16	83	575
5:00	1165	9.5	16	83	575
6:00	1165	9.5	16	83	575
7:00	1165	9.5	16	83	575
8:00	1165	9.5	16	83	575
9 —	1175	9.5	16.5	80	702
10 —	1165	9.5	16.5	80	715

Cent



Rev. 2 min in hi Bath, no current  
 143 Amps in hi bath #2  
 Wash room water in whiler,  
 rinse with distilled water and  
 put in dry in Copper  
 full immersion.

15 Bath

Started July 14, @ 12<sup>30</sup> noon.

Time	Spd	Volt	Amps	Temp	Total
2 <sup>30</sup>	1165	9.5	16.5	85	
3 <sup>30</sup>	1165	9.5	17	87	17
4 <sup>30</sup>	1165	9.5	16.5	85	34
5 <sup>30</sup>	1165	9.5	16.5	85	51
6 <sup>30</sup>	1165	9.5	16.5	85	68
7 <sup>30</sup>	1165	9.5	16.5	85	85
8 <sup>30</sup>	1165	9.5	16.5	85	102
9 <sup>30</sup>	1165	9.5	16.5	85	119
10 <sup>30</sup>	1165	9.5	16.5	83	136
11 <sup>30</sup>	1165	9.5	16.5	83	153
12 <sup>30</sup>	1165	9.5	16.5	83	170
AM	1165	9.5	16.5	83	187
1 <sup>30</sup>	1165	9.5	16.5	83	204
2 <sup>30</sup>	1165	9.5	16.5	83	221
3 <sup>30</sup>	1165	9.5	16.5	83	238
4 <sup>30</sup>	1165	9.5	16.5	83	255
5 <sup>30</sup>	1165	9.5	16.5	83	272
6 <sup>30</sup>	1165	9.5	16.5	83	289
7 <sup>30</sup>	1165	9.5	16.5	83	306
8 <sup>30</sup>	1165	9.5	16.5	83	323
9 <sup>30</sup>	1165	9.5	16.5	83	340
10 <sup>30</sup>	1165	9.5	16.5	83	357
11 <sup>30</sup>	1165	9.5	16.5	83	374
12 <sup>30</sup>	1165	9.5	16.5	83	391
1 <sup>30</sup>	1165	9.5	16.5	83	408

42) 758 (18.  
 42  
 338  
 338

Total Amps 758  
 " hours 42  
 Average Amps 18

5 Bath					
Time	Sp. Sv	Voltage	Amps	Temp	Total
1:15	115	9.5	17	80	399
2:30	116.5	9.5	16.5	80	416
3:30	116.5	9.5	16.5	80	433
4:30	116.5	9.5	17.5	80	450
5:30	116.5	9.5	18	83	468
6:30	116.5	9.5	18.5	82	487
7:30	116.5	9.5	20	82	507
8:30	116.5	9.5	20		527
9:30	116.5	9.5	21		548
10:30	116.5	9.5	21.5		569
11:30	116.5	9.5	21.5		
12:30	116.5	9.5	21.5		
1:30	116.5	9.5	21.5		
2:30	116.5	9.5	21.5		
3:30	116.5	9.5	21.5		
4:30	116.5	9.5	21.5		
5:30	116.5	9.5	21.5		
6:30	116.5	9.5	21.5		
7:30	116.5	9.5	21.5		
8:30	116.5	9.5	21.5		

Cent

Egg. for knots & trees.

High level female

Considerably reduced edge disc.

Part in dry

Revolves in dry, then full current on

Ran in 124 Amps in bath.

in bath.

Parkies Coloper bath dry.  
5 peapole lynch marked disc.  
Piston full current.

Tree started after 12 hr.  
in copper bath.

# 5 Bath					@ 11- PM.	
Time	Sp	Volts	Amps	Temp	Total	
11 PM	1165	9.5	16.5	89		
12	1165	9.5	17	89	17	
		July		17	20	
1 AM	1165	9.5	18	90	35	
2	1165	9.5	18	90	53	
3	1165	9.5	18	90	71	
4	1165	9.5	20	90	91	
5	1165	9.5	20	90	111	
6	1165	9.5	19	90	130	Transfered =
7	1165	9.5	18.5	90	148	Prod. #2 in
8	1165	9.5	18.5	93	167	Bath in bath
9	1165	9.5	19	93	186	in bath
10	1165	9.5	18.5	93	204	
11	1165	9.5	17	93	221	Tree started
12	1165	9.5	17	90	238	
1	1165	9.5	17	90	255	
2	1165	9.5	18	95	275	
3	1165	9.5	18	95	291	
4	1165	9.5	18	95	307	
5	1170	9.5	18	95	324	
6	1170	9.5	18	95	345	
7	1170	9.5	18	90	363	
8	1170	9.5	18	90	381	
9	1170	9.5	17	90	398	
10	1170	9.5	17	90	415	
11	1170	9.5	17	89	432	

Bath No 5

July 17-20

Time	Sh	Volt	Amp	Amp	Watt
12.00	1170	9-5	17	92	449
1	1170	9-5	17	92	449
2	1170	9-5	17	92	449
3	1170	9-5	17	92	449
4	1170	9-5	17	92	449
5	1170	9-5	17	92	449
6	1170	9-5	17	92	449
7	1170	9-5	17	92	449
8	1170	9-5	17	92	449
9	1170	9-5	17	92	449
10	1170	9-5	17	92	449
11	1170	9-5	17	92	449
12	1170	9-5	17	92	449
1.00	1170	9-5	17	92	449
2	1170	9-5	17	92	449
3	1170	9-5	17	92	449
4	1170	9-5	17	92	449
5	1170	9-5	17	92	449
6	1170	9-5	17	92	449

Total Amps 749  
 " hours 43  
 Average Amp 17.5 Amp

Out 43 hours



Traces started 4 hours  
after supper plate,

Time	Ln	Vols	Imp	Imp	Volts
7:40	1170	9-5	17	94	
8:30	1170	9-5	17	90	17
9:30	1170	9-5	17	90	34
10:30	1170	9-5	17	90	51
11:30	1170	9-5	17	90	
12:30	1170	9-5	17	90	
1:30	1170	9-5	17	90	
2:30	1170	9-5	17	90	
3:30	1170	9-5	17	90	
4:30	1170	9-5	17	90	
5:30	1170	9-5	17	90	
6:30	1170	9-5	17	90	
7:30	1170	9-5	17	90	
8:30	1170	9-5	17	90	
9:30	1170	9-5	17	90	
10:30	1170	9-5	17	90	
11:30	1170	9-5	17	90	
12:30	1170	9-5	17	90	
1:30	1170	9-5	17	90	
2:30	1170	9-5	17	90	
3:30	1170	9-5	17	90	
4:30	1170	9-5	17	90	
5:30	1170	9-5	17	90	
6:30	1170	9-5	17	90	

Transferred  
July 18, 20  
78 Amps  
in Plant

$$\begin{array}{r}
 143) 744.7 \\
 \underline{317} \\
 427.7 \\
 \underline{169} \\
 258.7
 \end{array}
 \quad 17.3$$

Total Amps 747  
 " hours 43  
 Average Amp 17.3

#5 Bath

July 19<sup>th</sup> 88

Roach's

Time PM	Wt. lbs.	Folts	Amps	Secs	Total
7:30	1165	9.5	17	85	414
8:30	1165	9.5	17	85	431
9:30	1165	9.5	16.5	85	447
10:30	1165	9.5	17	90	464
11:30	1165	9.5	17	92	481
12:30	1165	9.5	17	72	476
July 20:20					
1:30 PM	1165	9.5	17	78	515
2:30	1165	9.5	17	71	515
3:30	1165	9.5	17	76	557
4:30	1165	9.5	17	75	556
5:30	1165	9.5	17	76	584
6:30	1165	9.5	18	76	603
7:30	1170	9.5	18	90	639
8:30	1170	9.5	18	90	658
9:30	1165	9.5	18	90	674
10:30	1165	9.5	18	90	692
11:30	1165	9.5	18.5	95	711
12:30	1165	9.5	18	93	729
1:30	1165	9.5	18	92	747
2:30	1165	7.5	18	92	747

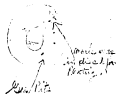
Cont

Jan. 12, 21

Hi Expt #1

Sp	Temp	Vol	Qty	Total	Remarks
2	122.5	110	B	5	gased considerable
300	"	"	"	2.0	2 1/2 By looks as if the
300	"	"	"	2.0	22 1/2 g. bubbles at the
400	"	"	"	2.0	42 3/4 and made pits
500	"	"	"	2.0	62 3/4 5/1000 thick

Hi Expt 3 1/2 hrs  
5/1000 thick



3" Cathode to anode  
1/4" Baffle under cathode  
1 1/2" anode surface  
9 1/4" hole in anode  
disc covered with  
lime  
50 R.P.M. on rotation  
1225 sp gr at 110°F

Jan. 13, 21

wi Effort #2

Time	Pressure	Temp	Volt	Amp	Std	Remarks
280	92.5	10.5	11.5	5		
300	"	"	11.5	20	2	New plate p
400	"	"	11.5	20	2	#1 Effort
500	"	"	20	42	3	
600	"	"	20	162	4	
700	"	"	20	82	5	Cent

Caliper  
6 1/2 / 1000

Jan. 14, 21

wi #3 Effort

Time	Pressure	Temp	Volt	Amp	Std	Remarks
1230	102		13	5		
1240	106		12.5	20	5	1
	109		12.5	20	25	2
	1		12.5	20	45	3
			12.5	20	65	4
			12.5	20	85	5

Slurp to off  
#1 Effort

Gas pits around  
center of plate.

Caliper  
7 / 1000



# Mr. Epper #4

Time	Sp. 2	Temp	Volt	Amp	Total	hrs.	Remarks
12:30	12.5	105	12	5			slip of #1 Except
1:00	"	110	"	20	2	1	raised baffle to
2:30	"	"	"	20	22	2	within 1/2" cathode
3:30	1230	"	"	20	42	2	See if it will draw
4:30	"	"	"	20	62	4	any of the pits from
5:00	1225	"	"	20	82	5	by the gasing.

6/1000

# Mr. Epper #5

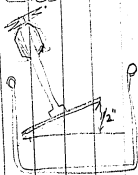
Time	Sp. 2	Temp	Volt	Amp	Total	hrs.	Remarks
12:30	12.5	105	12	5			slip of #1 Except
1:00	"	110	"	20	2	1	raised baffle to
2:30	"	"	"	20	22	2	within 1/2" cathode
3:30	1230	"	"	20	42	3	See if it will draw
4:30	"	"	"	20	62	4	any of the pits from
5:00	1225	"	"	20	82	5	by the gasing.

5 1/2 / 1000

Jan. 17, 21. <sup>Th</sup> Exper # 6

Time	Temp	Volts	Amper	Time	Remarks
7.1	119.5	90	11.5	5	1
7.2	"	91	11.5	20	2
7.3	"	92	12	20	25
7.4	"	95	12.5	20	45
7.5	100	12.5	20	65	4
7.6	118.5	10%	12.5	20	85

7 1/2 / 1000  
Rough Mottling



In favor of "disc 1/2" to the foot.  
Reason because some models have a hollow center which holds an air pocket that does not plate

Remarks  
Duplicate of # 4  
Except Temp. at 90  
Started about 10  
out what temp. was  
is still will not  
without heat loss  
if it is possible to  
eliminate the adding  
of Acetic Acid  
induced off by heat  
Disc plate 1/2  
Spittle, the gas  
are uniform all over  
the disc  
Plating will  
as if it would be off

Jan. 18, 21. <sup>Th</sup> Exper # 7

Time	Temp	Volts	Amper	Time	Remarks
7.1	118.0	95	11.5	5	1
7.2	"	98	12	20	5
7.3	"	100	13.5	20	25
7.4	119.0	103	13.5	20	45
7.5	105	"	20	65	4
7.6	120.0	108	14	20	85

Remarks  
Temp started 95  
Duplicate of # 6  
Out

Gas gets through  
out entire disc  
Plating not better



8 / 1000

Jan 18, 21.

M. Epper #8

Time	Sp. Inj	Volt	Ampl	Stk	Rev
6 PM	119	105	14	80	5
7	"	"	"	80	5
8	"	105	"	80	25
9	"	"	"	80	45
10	"	"	"	80	65
11	"	"	"	80	85

Remarks  
Start Inj 105

Cont.  
Out.

Less gas pits than 7/1000  
Gas pits more numerous  
but fewer, more in  
center than outside

7/1000



Jan 19, 21.

M. Epper #9

Time	Sp. Inj	Volt	Ampl	Stk	Rev
5:30	1180	85	85	5	
7	"	88	8.5	20	5
8	"	93	10	20	25
9	"	98	10	20	45
10	"	102	10	20	65
11	"	108	10	20	85

Remarks  
Speed 80 R.P.M.

Cont.

Alloy locked no one to come in  
unless keys given by night watchman to  
check into go in and out.

# in Eggs #10

Jan. 19	21	Sp. In. Temp.	Wt. H. Amp. Still	Time
4	1190	108	10.5	10
5	"	105	10.5	20
6	"	106	10.5	20
7	"	106	10.5	20
8	"	106	10.5	20
9	"	105	"	20

## Remarks

Slup of #9 Eggs  
Eggs at Temp. at 108°F.

added 100 cc Acetic  
also had the gas  
before adding acetic

at finish only when  
gas fits observed  
finished dec.

Looks good.



6/1000

# Jan. 20, 21.

Time	Sp. In. Temp.	Wt. H. Amp.	Still	Time
1190	95	10.5	5	1
"	98	10	20	5
"	103	10	20	25
"	108	"	20	45
"	108	"	20	65
"	105	"	20	85
"	105	"	20	105

# Eggs #11

## Remarks

Slup of #11  
10 Eggs.

added 100 cc Acetic  
at start  
This seems to do the  
trick, looked at obs  
of the 12 hour sitting  
looked perfect.

quite some gas fits  
86% fits at 100 cc



Jan. 20, 21 Experiment 12

Time	Sp. Gravity	Wt. Sample	Sold	Wt.	Remarks
12	1190	105	10	10	
1	"	107	"	10	Added 100 cc Acetic
2	"	"	"	20	Experiment for
3	"	"	"	30	Mr Edison as before
4	"	109	"	40	memo 8 to 10 Amps
5	"	112	"	50	for six hours then for
6	"	115	"	60	in and back up with

copper 75 amperes both  
 while stripped and then  
 want to take test  
 points 2 to see if  
 any trouble made  
 Model #7418 & how fit  
 its various pieces.

Dec 18 1920  
 Copper Experiment

Jan. 21		21		Epper #13	
Inch	Rev	Alt	Rev	Alt	Remarks
1136	195	102	11	16	Speed 118 R.P.M.
1230		105		30	
130				40	
230				30	Cent
3	"	110	"	15	85 3/4 Cent

Still has quite some  
gas pits through them

Caliber 6 / 1000

Jan. 21		21		Epper #14	
Inch	Rev	Alt	Rev	Alt	Remarks
1195	110	11	10		Neuphanta of #13
"	112	11	30	10	
"	115	11	30	40	
"	117	11	30	70	
"	117	"	15	85	3/4 Cent

Has a few gas pits

The disc ran very  
good before at 1100  
R.P.M. Look up Epper  
10 for reference.  
The Edison pump works  
discs with Endy Polish  
machine

Caliber 5 / 1000

JAN. 22, 21.

Eggs #15

Time	Temp	Alt	Comp	Dist	Area
9:30	121	105	11	10	
10:30	"	"	30	10	1
11:30	120	110	"	30	40 2
12:30	"	"	30	70	3
1:30	115	"	30	110	4

Remarks

Discarded working mould which had finished its run

Cents

Pitted all through



The stain mark etc is due to new pack in hot pol, if it is fine packing it would be a seed oil.

Calypso 64/1000

JAN. 22, 21.

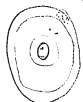
Eggs #16

Time	Temp	Alt	Comp	Dist	Area
11:30	119	115	14	10	
12:30	"	"	12	30	10 1
1:30	"	"	45	30	40 2
"	"	"	45	30	70 3
"	"	"	125	30	95 4

Remarks

Mould polished every then 8-4.

Look very good



8/1000

2 Pit marks on inside. Look up Eggs #13 & see pit marks before the mould was polished with Emery.

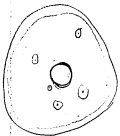
Jan 23, 21.

Expt # 17

In	Sp	Sp	Vet	Ang	Total	Ths
10	114	102	10	10		
11	"	106	10	30	10	1
12	"	110	10	30	40	2
1	"	110	10	30	70	3
130	"	110	10	15	85	3 1/2

Remarks  
Mould cleaned  
Emery then 8-4

Cal 5 1/4 / 100



Jan. 25, 21

Expt 18

In	Sp	Sp	Vet	Ang	Total	Ths
1	125	185	10	10		
2	"	88	"	30	10	1
3	"	92	"	30	40	2

Remarks  
Mould cleaned  
before 8-4  
Cuts

Start of solution  
Too cold some  
loose from disc.



Etched all around edge  
and loosened  
no dents



Jan. 25, 21.

Expt # 19

Time	Sp. Dr. Temp.	Volt	Amp.	Stitch	Thrs.
2	124	100	10	10	
3	"	"	10	30	10
4	"	105	10	30	40
5	1220	107	"	30	70
6	"	110	"	30	100

Remarks  
Duplicate of Expt. except machine cleaned by hand mach. before set.

To see what effect cleaning would have before plotting.



Seems to have quite a lot same as Expt # 15. Expt. further separated.

Angle changed to  $3\frac{3}{4}''$  to foot

Expt # 20.

Time	Sp. Dr. Temp.	Volt	Amp.	Stitch	Thrs.
2	1220	98	10	10	
3	"	102	10	30	10
4	"	105	11.5	30	40
5	"	"	11.5	30	70
6	"	"	12	15	85

Remarks  
Place on an angle of  $3\frac{3}{4}''$  to the foot to eliminate the pit holes.



Excellent plotting only notice one pit in frame, no inside margin of label.



All of the label very bright plotting, several thinner at the top.

Time	Sp. & Temp	Volt	Amp	Total Hrs
10.	1225 86	10.	10	
11	" 94	10.	30	10:10

## Experiment #21

Remarks

Shunt of #18

Wanted to check

resistance of sol.

is cause of heat

to strips while plating

when angle

disc was there

Brass lead line hit

not as bad as

#18 Expt.

No Good

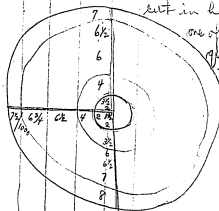
## Experiment #22

Remarks

Time	Sp. & Temp	Volt	Amp	Total Hrs
1225	98	9	10	
"	102	"	30	10
"	110	30	40	2
"	115	30	70	3
"	125	15	85	3 1/2

Seems to be  
light solution.  
Latter side  
the angle was  
changed on disc.

Mr. Edison had disc  
cut in half then  
one of the halves  
quartered for  
to see how  
solvent  
different  
sections



# Egger #23

Inch	Sp. Gr.	Temp	Volt	Amper	Time	Notes
2	125	100	10	30	10	1
3	"	"	"	30	10	1
4	"	105	"	30	10	2
5	1280	"	105	30	70	3
5 1/2	1220	"	"	15	85	3 1/2

Remarks  
Put in disc  
did not rotate  
went to see how  
thickness at center  
when disc went into  
measures taken as before



Disc cut in four sections  
Fracture for this one  
from angle, looks  
clear by 1/4 the  
bright plate  
It seems to be  
some solid for  
circulation of  
solution which was  
the back part of disc

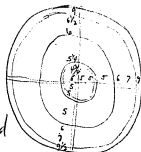


figures is taken in  
1000 of an inch.

# Egger #24

Inch	Sp. Gr.	Temp	Volt	Amper	Time	Notes
2 1/2	98	9	10	30	10	1
3 1/2	102	8 1/2	30	40	2	2
4 1/2	105	8	30	70	3	3
5 1/2	108	8	30	85	3 1/2	3 1/2

Remarks  
Took out the  
9 1/2" maple disc  
with liner filter on.



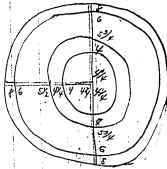
Caliper as marked

Note how close so lip  
runs around disc.

# Expt # 25

Time	Sp. In.	Volt	Amp	Total	No.	Remarks
3:30	12.75	100	6.5	10		
4:30	"	"	20	10	1	
5:30	"	105	30	40	2	
6:30	"	110	30	70	3	
7-	"	"	15	85	3 1/2	out

Remarks  
Duplicate of Expt  
#24 This time  
is to make sure  
a check,



Caliper

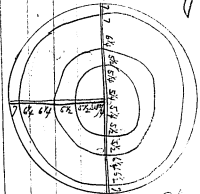
# Expt # 26

Remarks

Time	Sp. In.	Volt	Amp	Total	No.	Remarks
3:30	12.75	100	9.5	10		
4:30	"	105	30	10	1	1st Experiment with
5:30	"	108	30	40	2	rubber jar also a
6:30	"	112	30	70	3	1 3/4" x 1 1/2" anode subm.
7-	"	120	15	85	3 1/2	out

More than 10%  
10%  
10%

This is first disc  
with new rubber jar,

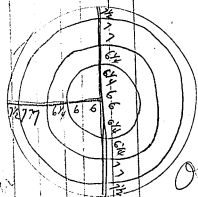


of

# Expt # 27

Remarks  
Duplicate #26 Expt

Time	Sp. Ht.	Sp. P.	Volts	Comp.	Wt.	Ans.
4:20	1125	120	9.5	10	10	1
5:30	"	"	"	30	10	2
6:30	"	"	"	30	40	3
7:30	"	"	"	30	70	3
8-	"	"	"	15	85	3 1/2 out



Caliper

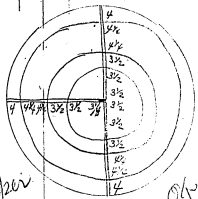
OK

# Expt # 28

Remarks  
Slump of Expt # 26  
Exceeded 1 lb. at 10 Amp  
then boost to 45 Amps  
for 1 hour and take out

out	115	9.5	10
"	120	"	45 10
"	130	"	45 55 2

Cent



Caliper

OK





Feb 5, 21

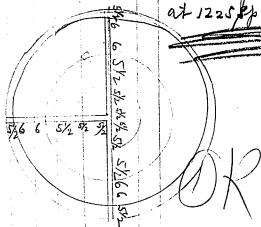
Expt # 33

Time	Spd	Inj	Volt	Amp	Titl	Ans
2:5	125	120	8	10		
3:5	"	125	12	60	10	1
4:15	"	135	12	60	70	2
5:15	"	"	12	60	130	3

Duplicate of #3  
Expt # Expt # 33  
3 hours  
Out.

Extra hour wait  
to supper should of  
been taken out at  
2 hrs.

Excess Acetic Acid  
by small heat work  
also temp above 1  
at 1225 sp. 9 am



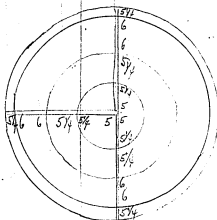
Feb 5, 21.

Expt # 34

Time	Spd	Inj	Volt	Amp	Total	Ans
12:25	115	9	10			
"	120	10	60	10	1	
"	125	10	60	70	2	

Remarks  
inside 1 1/2" from outside  
free hour close to be  
safe we can come  
to inside.

Temp Max 140°  
" Min 120°  
gives best Results



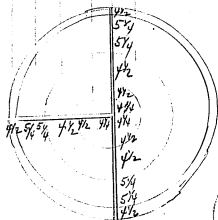


Feb 7, 21.

Expt #35

Time	Sp. h. Temp	Volt	Temp	Secs	Rev
12:15	125	120	9	10	
1:15	"	125	10	60	10
2:15	"	125	10	60	70

Remarks  
Duplicate of #34  
Expt.  
Cont.



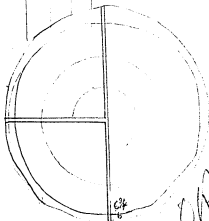
OR

Feb 7, 21

Expt #36

Time	Sp. h. Temp	Volt	Temp	Secs	Rev
12:15	125	100	6	10	
1:15	"	105	12	60	10
2:15	"	125	12	60	70

Remarks  
Duplicate of Expt #34  
to see if any big  
particles.  
ran 15 minutes over a  
hr was not in to  
the disc out



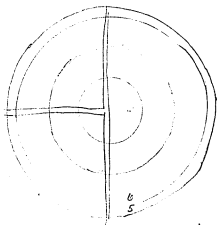
OR

Feb 7, 21

Time	Spk	Top	Volt	amp	Stal	He
3:50	120	120	9	10		
4:50	"	125	12	60	10	1
5:50	"	"	14	60	70	2

Experiment 37  
Remarks  
2 cups of Experiment 37  
for pot in amp  
develop

OK



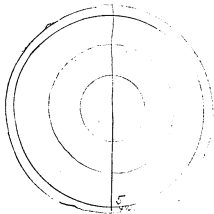
Experiment 38

Spk	Top	Volt	amp	Stal	He
120	120	12	10		
"	125	11	60	10	1
"	130	11	60	70	2

Remarks  
1 1/2" from battery  
made & took out  
baffle which was  
for the power.

*[Signature]*  
Baffle was not in  
also was pointed

Look very good OK



# Effort #39

Time	Sp. in	Sp. ft	Vol	Sp. ft	Total	Sp. ft
9:30	1220	125	11	60	10	1
10:30	"	126	11	60	70	2
11:30	"	135	11	6		

Remarks

duplicate of #38  
no sound broken  
1 1/2 from inside to outside

Look so very good.

5 1/2 / 1000 at 1000 ft

# Effort #40

Time	Sp. in	Sp. ft	Vol	Sp. ft	Total	Sp. ft
12:30	100	9	20	20	1	
"	108	9	20	20	1	

Remarks.  
1 1/2 from inside,  
not baffle,  
run 1/2 hour and  
strip at 20 Amps  
Look for pinkies



2 hole in this die at  
diameter 1 1/2 / 1000 thick

12:30	108	9	20	20	1
30	"	9	20	20	1

Effort #41  
duplicate of  
Effort #40



Two holes at label

1 1/2 / 1000 thick

Time	Sp. No.	Sp. No.	Vol.	Temp.	Total	How
135	1230	110	9	10	10	1
235	"	"	"	10	10	1

Expt #42

Remarks  
1/2" from anode,  
no bubble  
Run 10amps/hr,  
and strip, look for  
pin holes.

N.C.

Feb. 10 20

Expt #44

Time	Sp. No.	Sp. No.	Vol.	Temp.	Total	How
135	1230	110	9	30	30	1
235	"	"	"	30	30	1

Remarks.  
1/2" from anode  
no bubble.  
Run 30amps/hr,  
and strip, look for  
pin holes.

Time	Sp. No.	Sp. No.	Vol.	Temp.	Total	How
6	1230	110	9	10	10	1
7	"	"	"	10	10	1

Expt #43

Duplicate of Expt #42  
Expt.

N.C. showed pinholes

Time	Sp. No.	Sp. No.	Vol.	Temp.	Total	How
135	1230	110	9	30	30	1
235	"	"	"	30	30	1

Expt #45

Duplicate of Expt #44

Feb. 9, 21

Time	Temp	Volts	Amps	Std	Wts
4pm/230	105	9.5	10	10	1
"	110	12	60	60	2
6	"	11	60	60	2

OK

Expen #46

Remarks  
Lantern  
initiated by Spalding  
#5052 ft  
1 1/2" from anode  
No baffle to stop  
swirl  
10 Amps/hr  
60 " 1 "

Transfer to

Copper plate Expen #88 run 20  
Amps 1/2 hr then run  
to 75 Amps for 10 hrs  
Strip + Make 2 up

OK

1130	1230	112	8.5	10	
1230	"	115	10.5	60	10 1
130	"	120	"	60	70 2

# 50730 Expen #46  
Number 769972 JTG 749  
Out

This would be be  
wep fast plate in place  
Expen #91 to place  
then start + put it  
batter to turn and  
then make 2 B

Feb. 10, 21.

Time	Temp	Volts	Amps	Std	Wts
1230	110	9	10		
"	115	10.5	60	10	1
"	120	"	60	70	2

Expen #47

Remarks

Special Master  
to be in place then  
back with wire  
copper  
Want to make  
a working model  
as per drawing from  
Mr Pullin to Sullivan.

No good

account of  
the shellaced label  
from Master,  
This label stuck  
due to it being  
cannot run above  
90°F if label is shell  
pvc.

Feb. 11, 21

Expt # 48

Time of day	Temp	Wind	Dir	Rel. Hum.	Bar	X
3	125	105	9	10	-	-
4	"	110	"	60	10	1
5	"	"	"	60	70	2

Remarks  
Making working  
fast plotting from  
mould # 3333B  
Transfer to Rappan  
Expt # 90

OK

Feb. 13, 21

Expt # 49

Time	Temp	Wind	Dir	Rel. Hum.	Bar	X
1225	110	9	10	-	-	-
"	115	105	60	10	1	-
"	120	"	60	70	2	-

Remarks  
Making working  
mould from  
3431

To be noted in serial  
# 3333B: when  
backed up with  
copper.

Transferred to Expt  
# 90 after back

OK

Feb. 15, 21

Expt # 50

Time	Spd in Amp	Volt	Amp	Total	Hrs
2	125	120	8	10	1
3	"	120	10	60	10
4	"	120	60	70	2

Remarks  
To be backed up  
with Copper Expt # 49

OK plate

Time	Spd in Amp	Volt	Amp	Total	Hrs
4	125	125	8	10	1
5	"	125	95	60	10
6	"	"	60	70	2

Expt # 51  
Remarks  
To be backed up  
with Copper Expt # 49

OK plate.

Feb. 17, 21.

Expt # 52

Time	Spd in Amp	Volt	Amp	Total	Hrs
1	125	120	8	10	1
2	"	120	10	60	10
3	"	"	60	70	2

Remarks  
To be backed up  
for Copper Expt # 49

OK Plate

Time	Spd in Amp	Volt	Amp	Total	Hrs
4	125	120	8	10	1
5	"	125	10	60	10
6	"	"	60	70	2

Remarks  
To be backed up for  
Copper Expt # 48  
1 in. Expt # 53.

OK plate

Feb. 21, 21.

Expt #54

Time	Sp. In. Temp.	Volt	Amp	Total	Wts	Remarks
1	122.5	120	8	10		To be backed
2	"	125	10	60	10	up with Expt #9
3	"	"	"	60	70	Expt #9, Run V. of Expt #9 Expt #9

OK plate

Time	Sp. In. Temp.	Volt	Amp	Total	Wts	Expt #55
4	125	120	8	10		Remarks
5	"	125	10	60	10	1
6	"	"	"	60	70	2

Feb. 25, 21  
Mr Edison memo asking if the  
excess of Arctic Acid did away  
with the gas holes.  
Answer yes

Area fast plate 6.5 to 6 cc Arctic  
after 1240-1245 Expt #55 at 120°F.  
Cold plate regular  
2 cc per liter 250  
Arches  
Relg

March 3, 21

Expt #56

Time	Sp. In. Temp.	Volt	Amp	Total	Wts	Remarks
1	122.5	120	8	10		Working female #549
2	"	"	"	60	10	1st plated Expt selection fast plate
3	"	"	"	60	70	2 Cut to back up with Expt #106 Cu

Expt #57

Time	Sp. In. Temp.	Volt	Amp	Total	Wts	Remarks
1	122.5	120	8	10		Working female
2	"	"	"	60	10	#4336 C1
3	"	"	"	60	70	2 2nd plated Expt to be backed up with Expt #107 Cu

Expt #58

Time	Sp. In. Temp.	Volt	Amp	Total	Wts	Remarks
1	122.5	120	8	10		Working female
2	"	"	"	60	10	#5269 C1
3	"	"	"	60	70	3 3rd plated Expt selection to be backed up with #108 Expt #59





March, 1884  
Expt. on Core      Expt. #

Time	Sp. Gr. Temp	Wind	Temp	Total	W. No.	Remarks
11:30 12:30	1287 1287	80	5		12	Cora made up of the
	March 16		10		14	C. soldado, 1/4
9 AM	March 22, 1901		10		22	plains, 1/4
9 AM	March 22, 1901		10		22	plains, 1/4
9 AM	March 22, 1901		10		77	corn, 1/4
2 PM	March 22, 1901		30		24	Hard, 1/4

[ITEM(S) FOUND IN BOOK]

Mr. Epps Fast Plating  
#1 to 58 Experiments

#5

Rotated 30 minutes with 60 C.C.

Rubber Cement from Combination

Rubber Co

on 4:30 P.M. / 5:00 P.M.

Rotating at 26 R.P.M.

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Plating Experiments  
Notebook, N-20-06-08.2**

This notebook was used during June-July 1920 and December 1920-March 1921 by Edison, Walter N. Archer, Frank Detlef, Jr., and Howard F. Redford. The entries pertain to the plating processes involved in the manufacture of disc records. The first part of the book contains tabular reports similar to the ones in previous books such as N-20-06-08.1. The reports provide a daily record of molds plated in "Bath 4" using scrapped molds for anodes or cast copper anodes. A few notations by Edison appear on the early entries. The second half of the book contains entries from December 1920-March 1921 for plating experiments, numbered 51-160, that continue the experiments begun in N-20-06-09. The entries focus on improvements in the copper plating process. Among the numerous items inserted into the book are notes and instructions from Edison to Archer, as well as notes from Detlef and Redford to Archer with results noted in the daily record. The front cover is labeled "Baths." The pages are unnumbered. Approximately 180 pages have been used.

man. 15% 21  
new the pump - Hades lotter  
off old one - lasted 4 months.

New Hades 111 man. 18%.

5 1/4

4 Bath.

1st disc in

June 8th

S.G. Volts Amp Temp

2.20 P.M. June 8

1173 9 1/2 20 1/2 84

3.20

1175 9 1/2 19 1/2 83

4.20

1175 9 1/2 19 1/2 80

5.20

1175 9 1/2 19 1/2 72

6.20

1175 9 1/2 19 81

7.20

1175 9 1/2 19 82

8.20

1180 9 1/2 19 82

9.20

1170 9 1/2 19 82

10.20

1170 9 1/2 18 1/2 80

11.20

1170 9 1/2 18 81

12.20

1170 9 1/2 19 81

June 9

1.20 AM

1170 9 1/2 20 83

2.20

1170 9 1/2 21 83

3.20

1170 9 1/2 20 1/2 83

4.20

1170 9 1/2 20 81

5.20

1170 9 1/2 21 81

6.20

1170 9 1/2 20 1/2 82

7.20

1170 9 1/2 20 81

8.20

1170 9 1/2 20 88

9.20

1170 9 1/2 18 1/2 80

10.20

1170 9 1/2 19 80

11.20

1175 9 1/2 19 80

12.20

1170 9 1/2 19 81

1.20

1170 9 1/2 19 81

2.20

1170 9 1/2 19 81



NG

4 Bath  
June 9

	3-6-1	11-70	9-5	18	80
2 20	1170	9-5	18	80	
3 20	1170	9-5	18	80	
4 20	1170	9-5	18 1/2	82	
5 20	1170	9-5	18 1/2	83	
6 20	1170	9-5	18 1/2	83	
7 20	1170	9-5	18 1/2	81	
8 20	1170	9-5	18	80	
9 20	1170	9-5	18	80	
10 20	1170	9-5	18	80	
11 20	1170	9-5	18	80	
12 20	1170	9-5	19	82	
1 20	1170	9-5	19 1/2	82	
2 20	1170	9-5	19	80	
3 20	1170	9-5	19 1/2	82	
4 20	1170	9-5	20	82	
5 20	1170	9-5	20	83	
6 20	1170	9-5	20	83	
7 20	1170	9-5	20	83	
8 20	1170	9-5	21	83	
9 20	1170	9-5	21	83	
10 20	1170	9-5	20	80	
11 20	1170	9-5	20	81	

June 10 - AM

069-

Collector

Out

4 Bath  
2nd Lisc same in  
June 10<sup>th</sup>  
No Green in Bath

11 am. Edge at 18 hours started  
Crystalline but not enough  
to stop it from washing  
Clear to Edge  
In 360 ampoures 028 thick -

Stream  
in Bath L Bath 2nd Lisc same in

	S. G.	Wt. in	Conc.	Temp.
5.00	1175	9 1/2	18	81
6.00	1175	9 1/2	20	81
7.00	1175	9 1/2	20	80
8.00	1175	9 1/2	20	80
9.00	1175	9 1/2	20	80
10.00	1170	9 1/2	20	80
11.00	1170	9 1/2	19 3/4	80
12.00	1170	9 1/2	20	81 1/4
13.00	1170	9 1/2	20	80
14.00	1170	9 1/2	20	81
15.00	1170	9 1/2	20	80
16.00	1170	9 1/2	20	80
17.00	1170	9 1/2	20	82
18.00	1170	9 1/2	20	80
19.00	1170	9 1/2	20	80
20.00	1170	9 1/2	20	82
21.00	1170	9 1/2	20	82
22.00	1170	9 1/2	20	82
23.00	1170	9 1/2	20	82
24.00	1170	9 1/2	20	83
25.00	1170	9 1/2	20	82

Wash off sand at  
June 11

4 Bath 2<sup>nd</sup> Disc same *Circle*

	8 1/2	9 1/2	Comp.	Temp.
1100	1170	9 1/2	19	83
800	1170	9 1/2	19	83
900	1170	9 1/2	19	83
1000	1170	9 1/2	19	82
1100	1170	9 1/2	20	80 1/2
1200	1170	9 1/2	19	80
June 12				
20 AM	1170	9 1/2	19 1/2	80
30	1170	9 1/2	19 1/2	80
400	1170	9 1/2	19 1/2	80
500	1170	9 1/2	20	81
600	1170	9 1/2	20	80
700	1170	9 1/2	19	80
800	1170	9 1/2	19	80
900	1170	9 1/2	19 1/2	81
1000	1170	9 1/2	19	83
1100	1170	9 1/2	19	83 1/2
1200	42	1170	9 1/2	83
200	1 1/2 X	1170	9 1/2	83
300 PM		1170	9 1/2	83
400	June 12	1170	9 1/2	83

Bath No 4.  
2<sup>nd</sup> Disc prot 2:00 P.M. June 12  
start June 10 at 5 P.M.

866 Comp in 45 hours  
at 19 1/2 hours



June 12:

B 4

3 disc. in  
same Amels

PM	Spec.	Kalts	Ampl.	Temp.	Temp.
3:00	1170	9 1/2	18	83	
4:00	1170	9 1/2	18	82	18.
5:00	1170	9 1/2	17	80	35
6:00	1170	9 1/2	18	82	53
7:00	1170	9 1/2	18 1/2	83	71
8:00	1170	9 1/2	18	83	89
9:00	1170	9 1/2	17	83	106
10:00	1170	9 1/2	17	83	123
11:00	1170	9 1/2	16 1/2	81	140
12:00	1170	9.5	17	85	156
1:00	1170	9.5	17	84	173
2:00	1170	9.5	16	84	189
3:00	1170	9.5	16	82	205
4:00	1170	9.5	16	82	221
5:00	1170	9.5	16	82	231
6:00	1170	9.5	16	82	253
7:00	1170	9.5	16	81	269
8:00	1170	9.5	16	84	285
9:00	1170	9.5	15 1/2	82	300
10:00	1171	9.5	15 1/2	82	316
11:00	1170	9.5	15	82	331
12:00	1175	9.5	15	81	346
1:00	1175	9.5	15	81	361
2:00	1175	9.5	15	81	376
3:00	1175	9.5	15	82	391
4:00	1175	9.5	15	83	406

Bath No. 4. June 13 P.M.  
 3 not disc. plating in this Bath dropped  
 from 14 amperes to 8 amperes at 10:00 AM  
 looked at anode and found worn  
 out. Spopped Plating at 10:10 o'clock

June 13

B4

Time	Sec	Volts	amp	Temp	Sample
9:00	1175	9-5	15	83	421
9:40	1175	9-5	15	83	436
10:00	1175	9-5	15	83	451
10:20	1175	9-5	15	83	466
10:40	1175	9-5	15	83	482
10:58	1175	9-5	14	80	

3 disc in same anode

taken out

No 4 Both 1 1/2" dia in

Anode same as # 6.



Can lift Cover without changing  
Connections This is 2nd one  
of this kind probably standard

Ann-15-9 P.M. Feed Anode

Time	S.G.	Volts	Amph	Temp	Total Amph
9:00	1170	9 1/2	20	83	
10:00	1170	9 1/2	22	83	22
11:00	1170	9-5	23	83	45-
12:00	1170	9-5	23	80	68
P.M.					
1:00	1170	9.5	23	82	91
2:00	1170	9.5	23	80	114
3:00	1170	9.5	23	80	137
4:00	1170	9.5	23 1/2	80	160
5:00	1170	9.5	23 1/2	80	184
6:00	1170	9.5	23 1/2	80	207
7:00	1170	9.5	23 1/2	80	231
8:00	1170	9.5	23	80	254
9:00	1170	8.5	23 1/2	83	277
10:00	1170	9.5	23	83	300

W 4 Both

1st Line  
Out

IN	Ln	Volts	Amp	Temp	Total
80	1170	9 1/2	22 1/2	80	323
100	1170	9 1/2	22 1/2	80	345
160	1170	9 1/2	22 1/2	82	368
100	1170	9 1/2	23	82	390
100	1170	9 1/2	23 1/2	82	413
100	1170	9 1/2	23 1/2	82	447
100	1170	9-5	24 1/2	82	469
100	1170	9-5	24 1/2	82	492
100	1170	9-5	22	82	514
100	1170	9-5	22	82	536
100	1170	9-5	22	83	558
100	1170	9-5	22	83	580
1200	1170	9-5	22	80	602
2000	1170	9-5	22	81	624
June 17					
200	1170	9-5	22	80	646
400	1170	9-5	22	80	668
300	1170	9-5	22	80	690
400	1170	9-5	23	80	713
500	1170	9-5	22	82	735
600	1170	9-5	22	82	757
700	1170	9-5	23	81	780
800	1170	9-5	22	80	802
900	1170	9-5	22 1/2	83	824
1000	1175	9-5	22	83	846
1100	1175	9-5	21 1/2	83	868

In June 15 - 200 P.M.  
868 Amp in 38 hours  
about 23 Per hour

Out June 17 - 11:00 A.M.

Out

Bath No 4 2 obs in Bath

Time	Spec.	Stella	amps	Temp	
1:30	1175	9-5	20	81	
2:00	1175	9-5	21	82	21
3:30	1175	9-5	21	82	42
4:30	1175	9-5	21	82	63
5:30	1175	9-5	21	82	84
6:30	1175	9-5	21	82	105
7:30	1175	9-5	20 1/2	82	125
8:30	1175	9-5	21	82	146
9:30	1175	9-5	21	82	167
10:30	1175	9-5	20 1/2	82	188
11:30	1175	9-5	20 1/2	82	208
12:30	1175	9-5	20 1/2	80	229
Dune 18					
1:30	1175	9-5	20	80	249
2:30	1175	9-5	20	80	269
3:30	1175	9-5	20	82	289
4:30	1175	9-5	21	80	310
5:30	1175	9-5	21	80	331
6:30	1175	9-5	20	80	351
7:30	1175	9-5	21	82	372
8:30	1175	9-5	21	83	393
9:30	1175	9-5	21	83	414
10:30	1175	9-5	21	83	435
11:30	1175	9-5	20 1/2	83	455
12:30	1175	9-5	21	83	476
1:30	1175	9-5	21	83	497

Beth 714 4 2 Lic

un	Sch	Vlt	Cmp	Cmp	dtel
1-30	1175	9-5	21	83	618
1-30	1175	9-5	21	84	639
1-30	1175	9-5	21	84	660
1-30	1175	9-5	20	83	680
1-30	1175	9-5	20	83	700
1-30	1175	9-5	20	83	720
1-30	1175	9-5	20	83	740
1-30	1175	9-5	20	83	760
0-30	1175	9-5	20	83	780
1-30	1175	9-5	20	80	800
2-30	1175	9-5	20	80	820
2-30	1175	9-5	20	80	840
2-30	1175	9-5	20	80	860
2-30	1175	9-5	20	80	880
2-30	1175	9-5	20	80	900
2-30	1175	9-5	20	80	920
2-30	1175	9-5	20	80	940
2-30	1175	9-5	20	80	960
2-30	1175	9-5	20	80	980
2-30	1175	9-5	20	80	1000

Out  
37 hours

714 Beth 2<sup>nd</sup> Lic Out Jan 19

860 Cmp in 37 hours

23-9 Cmp Per hour

in Jan 17 - 130 P.M.

June 19. 1904

No 4 Bath after second mould  
taken out filled chamber with  
Copper pieces

June 19

No 4 Bath & the size in  
same neck

P.M.	Bar	Wells	Temp	Temp	Total
1:30	1175	9 1/2	19	83	
1:30	1175	9 1/2	21	83	21
1:30	1175	9 1/2	21	83	42
2:30	1175	9 1/2	21 1/2	83	63
2:30	1175	9 1/2	20 1/2	83	84
3:30	1175	9 1/2	20 1/2	83	104
4:30	1175	9 1/2	21	83	125
5:30	1175	9 1/2	21 1/2	83	146
6:30	1175	9 1/2	22	83	168
A.M.					
2:30	1175	9 1/2	22	83	190
3:30	1175	9 1/2	22	80	210
4:30	1175	9 1/2	21	80	233
5:30	1175	9 1/2	21	80	254
6:30	1175	9 1/2	21	80	275
7:30	1175	9 1/2	21	81	296
8:30	1175	9 1/2	21	82	317
9:30	1175	9 1/2	21 1/2	82	338
10:30	1175	9 1/2	21 1/2	83	359
11:30	1175	9 1/2	22	83	381
12:30	1175	9 1/2	22	83	403
1:30	1175	9 1/2	22	83	425
P.M.					
2:30	1175	9 1/2	22	83	447
3:30	1175	9 1/2	22	83	469

466

over  
22  
tail

No 4 Bath 3<sup>rd</sup> Dec 11

Time	Len	Wth	Comp	Temp	Total
1:30					
2:30	1175	9 1/2	22 1/2	83	491
3:30	1175	9-5	22	83	513
4:30	1175	9-5	21 1/2	83	534
5:30	1175	9-5	21 1/2	83	556
6:30	1175	9-5	21	83	577
7:30	1175	9-5	21	83	598
8:30	1175	9-5	21	82	619
9:30	1175	9-5	21	82	630
10:30	1175	9-5	21	82	651
11:30	1175	9-5	21	82	672
12:30	1175	9-5	21	82	693
1:30	1175	9-5	21	82	714
2:30	1180	9-5	21	83	735
3:30	1180	9 1/2	21	84	756

36 hours

No 4 Bath  
 marked taken out  
 total Compens<sup>2</sup> figured up  
 right man mistake



Power off at 5 o'clock started  
again at 5:15 P.M.

No 4 Beth 4<sup>th</sup> Dec  
same method

Time	Shv	Volts	Temp	Temp	Total
5:30 PM	1175	9 1/2	19	83	
6:30	1175	9 1/2	21	83	21
7:30	1175	9 1/2	21	83	42
8:30	1175	9 1/2	21	83	63
9:30	1175	9 1/2	21	83	84
10:30	1175	9 1/2	21	83	105
11:30	1175	9 1/2	20 1/2	83	125 1/2
12:30	1175	9 1/2	21	83	146
1:30	1175	9 1/2	21	83	167
2:30	1175	9 1/2	21	83	188
3:30	1175	9 1/2	21	83	209
4:30	1175	9 1/2	21	83	230
5:30	1175	9 1/2	21 1/2	83	251
6:30	1175	9 1/2	21 1/2	84	272
7:30	1175	9 1/2	20	82	293
8:30	1175	9 1/2	20 1/2	83	313 1/2
9:30	1175	9 1/2	21	83	334
10:30	1175	9 1/2	21	83	355
11:30	1175	9 1/2	21	83	376
12:30	1175	9-5	21	83	397
1:30	1175	9-5	21	83	418
2:30	1175	9-5	21	83	439
3:30	1175	9-5	21 1/2	83	460
4:30	1175	9-5	2 1/2	83	482
5:30	1175	9-5	21	83	503

7744 Bath 4 Lisc in

Amel

JUNE	Albr	Both	Comp	Temp	Total
22					
6:30	1175	9 1/2	21	83	524
7:30	1175	9 1/2	21	83	545
8:30	1175	9 1/2	21	83	566
9:30	1175	9 1/2	21	83	587
10:30	1175	9 1/2	21	83	608
11:30	1175	9 1/2	21	83	629
12:30	1175	9 1/2	21	83	650
1:30	23				
2:30	1175	9 1/2	21	80	671
3:30	1175	9 1/2	21	80	692
4:30	1175	9 1/2	21	80	713
5:30	1175	9 1/2	21	80	734
6:30	1175	9 1/2	21	81	755
7:30	1175	9 1/2	21	81	776
8:30	1175	9 1/2	21	81	797
9:30	1175	9 1/2	21	83	818
10:30	1175	9 1/2	21	83	839
11:30	1175	9 1/2	21	83	860

Out

41 hours

21 Comp Per hours

June 23 7-30 P.M.

Probe Chamber filled up with  
Copper pieces

#4 Bath 5th Size in  
same grade

Time	Volts	Temp	Wt
8:00	1175	9 1/2	19
9:00	1170	9 1/2	19
10:00	1176	9 1/2	19 1/2
11:00	1176	9 1/2	19
12:00	1170	9 1/2	19
1:00	1170	9 1/2	19
2:00	1170	9 1/2	19
3:00	1170	9 1/2	20
4:00	1170	9 1/2	21
5:00	1170	9 1/2	21
6:00	1170	9 1/2	21 1/2
7:00	1170	9 1/2	22
8:00	1170	9 1/2	22
9:00	1170	9 1/2	21 1/2
10:00	1170	9 1/2	21 1/2
11:00	1170	9-5	20 1/2
12:00	1170	9-5	20 1/2
1:00	1170	9-5	20 1/2
2:00	1170	9-5	20 1/2
3:00	1170	9-5	20
4:00	1170	9-5	19 1/2
5:00	1170	9-5	19
6:00	1170	9-5	18 1/2
7:00	1170	9-5	18 1/2

# Mc 4 Beth 5th Line

June

Time	Volts	Amp	Watt
8:00	1170 9 1/2	26	83
9:00	1170 9 1/2	20	83
10:00	1170 9 1/2	20	83
11:00	1170 9 1/2	20	83
12:00	1170 9 1/2	20	83
A.M. June 25			
1:00	1170 9 1/2	20	83
2:00	1170 9 1/2	20	81
3:00	1170 9 1/2	19	82
4:00	1170 9 1/2	19 1/2	82
5:00	1170 9 1/2	20	82
6:00	1170 9 1/2	19	82
7:00	1170 9 1/2	20	82
8:00	1175 9 1/2	19	82
9:00	1175 9 1/2	19	82
10:00	1175 9-5	20	82
11:00	1175 9-5	19	82
12:00	1170 9-5	20	80
1:00	1170 9-5	20	80
2:00	1170 9-5	19	80
3:00	1170 9-5	19	80
4:00	1170 9-5	19	80
8:58 out			
June 25- 8:58			
3:00 PM 19 Amps			

No 4 Bath 6th Disc in  
same tank

JUNE  
25

PM

Time	Spn	Dist	Temp	Temp	Alal
7:00	1170	9 1/2	18	80	
8:00	1170	9 1/2	18	80	18
9:00	1170	9 1/2	19	80	37
10:00	1170	9 1/2	19	82	66
11:00	1170	9 1/2	19	82	75
12:00	1170	9 1/2	20	80	95

Sum

26

PM

1:00	1170	9 1/2	18	82	113
2:00	1170	9 1/2	18	83	131
3:00	1170	9 1/2	19	83	150
4:00	1170	9 1/2	19	83	169
5:00	1170	9 1/2	19	81	188
6:00	1170	9 1/2	19	81	207
7:00	1170	9 1/2	18 1/2	83	225
8:00	1170	9 1/2	19	83	244
9:00	1170	9 1/2	19	83	263
10:00	1170	9 1/2	19	83	282
11:00	1170	9 1/2	19	83	301
12:00	1170	9 1/2	19	83	320

PM

1:00	1170	9-5	18	80	338
2:00	1170	9-5	18	80	356
3:00	1170	9-5	18	83	374
4:00	1170	9-5	18	83	392
5:00	1170	9-5	18	80	401

No 4 Bath 6th Disc in

Time	Sh	Bath	Comp	Temp	Total
6:00	1170	9-5	18	86	428
7:00	1170	9-5	18	83	446
8:00	1170	9-5	17 1/2	83	463
9:00	1170	9-5	17 1/2	83	481
10:00	1170	9-5	17 1/2	83	498
11:00	1170	9-5	17 1/2	83	516
12:00	1170	9-5	17 1/2	81	533
1:00	1170	9-5	17 1/2	81	551
2:00	1170	9-5	17	80	568
3:00	1170	9-5	17	81	585
4:00	1170	9-5	17	81	602
5:00	1170	9-5	18	81	620
6:00	1170	9-5	18	81	638
7:00	1170	9-5	18	81	656
8:00	1170	9-5	18	81	674
9:00	1170	9-5	18 1/2	83	692
10:00	1170	9-5	18 1/2	83	711
11:00	1170	9-5	18 1/2	83	729
12:00	1170	9-5	18	83	747
1:00	1170	9-5	18	83	765
2:00	1170	9-5	18	83	783
3:00	1170	9-5	18	83	801
4:00	1170	9-5	18	83	819
5:00	1170	9-5	17	83	836
6:00	1170	9-5	17	83	853

No 4 Bath 6th Disc Out

June 27 - 7:00 PM  
8:70 Comp in 48 hours  
about 18 Comp in hours

in June 25 - 7:00 PM

Time	Sh	Bath	Comp	Temp	Total
7:00	1170	9-5	17	83	870

Out

Nov 28, 20.

No 4 Bath 7th disc in  
same line

Time	Secs	Temp	Temp	Total
12:00	1170	9-5	14	86
1:00	1170	9-5	16	80
2:00	1170	9-5	16 1/2	80
3:00	1170	9-5	16 1/2	81
4:00	1170	9-5	16 1/2	81
5:00	1170	9-5	16 1/2	81
6:00	1170	9-5	16 1/2	81
7:00	1170	9-5	16 1/2	82
8:00	1170	9-5	15 1/2	82
9:00	1170	9-5	18 1/2	81
10:00	1170	9-5	18 1/2	81
11:00	1170	9-5	18	83
12:00	1170	9-5	18	83
1 PM	1175	9-5	19	80
2 "	1175	9-5	18	83
3 "	1175	9-5	17	81
4 "	1150	9-5	17 1/2	82
5 "	1165	9-5	18	78
6 "	1165	9-5	18	80
7 "	1165	9-5	18 1/2	80
8 "	1165	9-5	18 1/2	80
9 "	1165	9-5	18	80
10 "	1165	9-5	18	80
11 "	1165	9-5	16	86
12 "	1165	9-5	17	80

$$\begin{array}{r}
 245 \overline{) 5852} \quad (16.9 \\
 \underline{2400} \\
 2070 \\
 \underline{3300} \\
 3100
 \end{array}$$

Start Wkt. 2 & 20. 12 PM.  
 Finish " 29, 20 10.31 AM  
 Total Amps 585  
 " hours 34½  
 Average Amps = 16.9

# 4 Bath

#7 disc  
 loose scrap anode

No 4 Bath 7th Disc in  
same anode

June 29	A.M.	Volts	Amps	Temp.	Time
	8.9	9-5	16 1/2	81	430
	1.00	1165	9-5	81	444
	2.00	1165	9-5	82	463
	3.00	1165	9-5	82	480
	4.00	1165	9-5	81	496
	5.00	1165	9-5	81	513
	6.00	1165	9-5	82	527
	7.00	1165	9-5	82	545
	8.00	1165	9-5	87	563
	9-0	1165	9-5	86	579
	10-0	"	"	86	585

Revised Nov.  
at 11:5 AM  
Curt

Cut out to make  
 space for wkt up, and  
 cleaned up crystals in  
 anode chamber



June #4 Both

Cast made  
Person None

No 4 Bath bet Line in  
Cast Anoid

July 9	AM	SW	Volts	Temp	Temp	Water
11:00	1165	9-5	15			
12:00	1165	9-5	15	80	15	
1:00	1165	9-5	15	80	30	
2:00	1165	9-5	15	80	45	
3:00	1165	9-5	14.5	83	59	
4:00	1165	9-5	14	83	73	
5:00	1165	9-5	14	83	87	
6:00	1165	9-5	14	83	101	
7:00	1165	9-5	14	83	115	
8:00	1165	9-5	14	84	129	
9	1165	9-5	14	84	143	
10	1165	9-5	14	84	157	
11	1165	9-5	14	82	171	
12:00	1165	9-5	14	82	185	
1:00	1165	9-5	14	82	199	
2:00	1165	9-5	14	84	213	
3	1165	9-5	14	83	227	
4	1165	9-5	14	83	241	
5	1165	9-5	13-5	83	255	
6	1165	9-5	13	82	268	
7	1165	9-5	13	82	281	
8	1165	9-5	13	81	294	
9	1165	9-5	13	81	307	
10	1165	9-5	14	81	321	

Notation

No 4 Bath to Linc  
Cast Creek

JULY	Sta	Delta	Comp	Comp	Total	
4 <sup>th</sup>						
P.M.						
11.00	1165	9-5	13-5	81	334	not a net on
12.00	1165	9-5	13-5	81	348	
A.M.	July 5					
1.00	1165	9-5	13-5	81	361	
2.00	1165	9-5	13-5	81	375	
3.00	1165	9-5	13-5	81	388	
4.00	1165	9-5	13-5	81	402	
5.00	1165	9-5	14	81	416	
6.00	1165	9-5	13-5	81	429	
7.00	1165	9-5	13-5	81	443	
8.00	1165	9-5	13-5	81	456	
9.00	1165	9-5	13-5	81	470	not a net on
10.00	1165	9-5	14	81	484	
11.00	1165	9-5	14	81	498	
12.00	1165	9-5	14	81	512	
P.M.						
1.00	1165	9-5	14	81	526	
2.00	1165	9-5	14	81	540	
3.00	1165	9-5	14	81	554	
4.00	1165	9-5	14	81	568	
5.00	1165	9-5	14	81	582	
6.00	1165	9-5	14	81	596	
7.00	1165	9-5	14	81	610	not a net on
8.00	1165	9-5	14	81	624	
9.00	1165	9-5	14	81	638	
10.00	1165	9-5	14	81	652	

Cleaned up .032

Outside Re-lap = .053  
Inside " = .061

54 ) 748 ( 13.7  
342  
406  
748  
380  
368

#4 Bath #1 disc Castaneda  
After cleaning tanks free from  
grease & oil  
Run total to 750 amperes.

Start July 3.26. 11.P.M.  
Finish " 6.26. 5.A.M.

Total Amps 748  
" 54  
Average Amps 13.7

No 4 Bath 1st Disc  
Castaneda

July 5	PM	2gr	Volts	Amps	Temp	Total
1.0.0	1165	9-5	14	81	666	
12.0.0	1165	9-5	13	81	679	
AM	July 6					
1.0.0	1165	9-5	13 1/2	81	693	
2.0.0	1165	9-5	13 1/2	81	706	
3.0.0	1165	9-5	13 1/2	81	720	
4.0.0	1165	9-5	14	81	734	
5.0.0	1165	9-5	14	81	748	Out
					54 hrs.	

Insulation in Bath No 4 edge was  
rounded off

Visio. P. 10.15 P.M.  
Stimmer's lab on oct

July 1, 9:20 AM

Added 5 cc general bath dope  
to plating solution 11:30 July 1.

July 6 Bath No 4 2nd. disc in  
last anodes

PM	Sp. Volts	amp.	Temp.	Total
2-30	1165 9-5	14	76	
3-30	1165 9-5	14	80	14
4-30	1165 9-5	18	83	29
5-30	1165 9-5	14-5	83	43
6-30	1165 9-5	14	83	57
7-30	1165 9-5	14	84	71
8-30	1165 9-5	14	84	85
9-30	1165 9-5	13-5	84	98
10-30	1165 9-5	13-5	84	112
11-30	1165 9-5	13-5	84	126
12-30	1165 9-5	15	84	141
A.M. July 7				
1-30	1165 9-5	15	84	156
2-30	1165 9-5	14	84	170
3-30	1165 9-5	13-5	84	183
4-30	1165 9-5	13-5	84	197
5-30	1165 9-5	13-5	84	210
6-30	1165 9-5	13-5	84	224
7-30	1165 9-5	13-5	84	237
8-30	1165 9-5	13	85	250
9-30	1165 9-5	14	85	264
10-30	1165 9-5	13	85	277
11-30	1165 9-5	13	83	290
12-30	1165 9-5	13	82	303
1-30	1165 9-5	13-5	83	316

114) 593  
 153  
 132  
 216  
 13.4

#4 Bath

2nd price in  
Easton side.

Time	Sp. Htn	V.Ht	Ampt.	Imp.	Total
12:00	1170				
2:30	1165	9.5	13.5	83	329
3:30	1165	9.5	13.5	84	343
4:30	1165	9.5	13.5	85	356
5:30	1165	9.5	13.5	85	370
6:30	1165	9.5	13.5	85	383
7:30	1165	9.5	13.5	84	397
8:30	1165	9.5	13.5	83	410
9:30	1165	9.5	13	83	423
10:30	1165	9.5	13	82	436
11:30	1165	9.5	13	82	449
12:30	1165	9.5	13	82	462
A.M.	July 8				
1:30	1165	9.5	13	82	475
2:30	1165	9.5	13.5	82	489
3:30	1165	9.5	13.5	82	502
4:30	1165	9.5	13	82	515
5:30	1165	9.5	13	82	528
6:30	1165	9.5	13	82	541
7:30	1165	9.5	13	82	554
8:30	1165	9.5	13	82	567
9:30	1165	9.5	13	80	580
9:30	1165	9.5	13	80	593

Clot

#2 hi plated disc, from #1 hi bath.

Wash, wash, then rinsed with city water, then distilled water and put in wash drier. Washed dist #20. 2 min. hot copper bath max current then to 600 Am/ps for 2 summer in bath.

Disc was left stand in copper bath current off 2 hours, showed oxidation on part exposed to air. Rinsed in city water phase

47  
643  
473  
123  
325

Start July 8, 20 - 10 A.M.

Finish July 11, 20 - 9<sup>10</sup> A.M.

Initial time 643  
Average Amp. 47  
137

# #4 Bath

Started July 8, 20.

date	Sp. No.	Volt	Amp	Temp	Total
10. AM	1165	9.5	14.5	80	
11 -	1165	9.5	13	80	13
12 -	1165	9.5	13.5	82	27
1 PM	1165	9.5	13	80	40
2 PM	1165	9.5	13	86	53
3 -	1165	9.5	13	86	66
4 -	1165	9.5	13	80	79
5 -	1165	9.5	14	80	93
6 -	1165	9.5	14	80	107
7 -	1165	9.5	13.5	80	120
8 -	1165	9.5	13.5	80	134
9 -	1165	9.5	13.5	80	147
10 -	1165	9.5	13	80	160
11 -	1165	9.5	13	80	173
12 -	1165	9.5	13	80	186

July 9, 20

1 AM	1165	9.5	13	80	
2	1165	9.5	13	80	
3	1165	9.5	13	80	
4	1165	9.5	13	80	
5	1165	9.5	13	80	
6	1165	9.5	13	80	
7	1165	9.5	13	80	
8	1165	9.5	12	80	
9	1165	9.5	13.5	78	303

3rd disc  
not used  
#2 hi plated disc  
from #1 hi bath

Grade change M  
2455 phase 12-1

Added 100 grains bath dope to  
Lopp. par. plate pot. at 11 AM July 29.

643 (

# #4 Bath

July 29, 1929.					
Date	Sp. No.	Volts	Amps	Temp.	Total
10 AM	1165	9.5	14	79	317
11 -	1170	9.5	14	80	331
12 -	1165	9.5	15	80	346
1 PM	1165	9.5	15	82	361
2 -	1165	9.5	15	81	376
3 -	1165	9.5	15	81	391
4 -	1165	9.5	14	80	405
5 -	1165	9.5	14	80	419
6 -	1165	9.5	14	80	433
7 -	1165	9.5	14	80	447
8 -	1165	9.5	14	80	461
9 -	1165	9.5	14	80	475
10 -	1165	9.5	14	80	489
11 -	1165	9.5	14	80	503
12 -	1165	9.5	14	80	517
July 30, 1929					
1 AM	1165	9.5	14	80	531
2 AM	1165	9.5	14	80	545
3 AM	1165	9.5	14	80	559
4 AM	1165	9.5	14	80	573
5 AM	1165	9.5	14	80	587
6 AM	1165	9.5	14	80	601
7 AM	1165	9.5	14	80	615
8 AM	1165	9.5	14	80	629
9 AM	1165	9.5	14	80	643

2nd die.  
2nd an.  
#2 in plate  
from 11 AM to 12 PM

Out



July 10 1912  
 MEI. Head for 1st. washed  
 well and head with distilled  
 water put in net  
 put in 704 Copper. left for  
 24 minutes with lamp off  
 start off for 1st lamp

2nd lamp on with cover  
 lead up

# 704 Bath

July 10 PM	Sh	Volt	Amf	Amf	Rate
8-30	1165	9-5	14	80	
9-30	1165	9-5	13-5	80	13
10-30	1165	9-5	13	80	26
11-30	1165	9-5	12	80	
12-30	1165	9-5	12	80	
1-30	1165	9-5	12	80	
2-30	1165	9-5	12	80	
3-30	1165	9-5	12	80	
4-30	1165	9-5	12	80	
5-30	1165	9-5	12	80	
6-30	1165	9-5	12	80	
7-30	1165	9-5	12	80	
8-30	1165	9-5	12-5	80	178
9-30	1165	9-5	12	80	170
10-30	1165	9-5	11	80	181
11-30	1165	9-5	11	80	192
12-30	1165	9-5	11	80	203
1-30	1165	9-5	11	80	214
2-30	1165	9-5	11	80	225
3-30	1165	9-5	11	80	236
4-30	1165	9-5	11	80	247
5-30	1165	9-5	11	80	258
6-30	1165	9-5	11	80	269
7-30	1165	9-5	11	80	

$$\begin{array}{r}
 43 \overline{) 618} \quad 14.3 \\
 \underline{188} \\
 172 \\
 \underline{160} \\
 129 \\
 \underline{129} \\
 0
 \end{array}$$

Start July 10, 20 at 8:30 PM.  
 Finish July 12, 20 - 3 PM.  
 Total Amps 615  
 " Hours 43  
 Average Amps 14.3

July 4 - Beth McFar

July	Sh	Orth	Amp	Count	Notes
1 PM	1165	9.5	11	81	
8:00					
9	1165	9.5	12	81	
10	1165	9.5	12	81	
11	1165	9.5	13	81	
12	1165	9.5	13	81	
AM	1165	9.5	11	81	
1:00	1165	9.5	11	81	
2:00	1165	9.5	12	81	
3:00	1165	9.5	11	81	
4:00	1165	9.5	11	81	
5:00	1165	9.5	11	81	
6:00	1165	9.5	11	81	
7:00	1165	9.5	11	81	
8:00	1165	9.5	15.5	83	711
9-	1165	9.5	15.5	82	434 changed to 711
10-	1165	9.5	15.5	82	458 <u>plus to 711</u>
11	1165	9.5	15.5	82	465
12	1165	9.5	15	80	480
1:00	1165	9.5	15	80	495
2-	1165	9.5	16.5	80	601
3-	1165	9.5	16.5	80	618
4	1165	9.5			Cent

Put new Copper Anode in  
 Box 5 min dry then current 27 Amps half  
 put in dry Copper Bath  
 One minute at 27.3 Amps. 6<sup>th</sup> batch  
 then full current on.

# # 4 Bath

Start Time	July 12, 20.	Oct.	6 <sup>30</sup> PM.
Time	Volt	Amps	Temp
6:30	116.5	9.5	13 80
7:30	116.5	9.5	13 80 13
8:30	116.5	9.5	13 80 26
9:30	116.5	9.5	13.5 81 39
10:30	116.5	9.5	13.5 83 52
11:30	116.5	9.5	13 83 65
12:30	116.5	9.5	13 83 77
July 13, 20.			
1:30	116.5	9.5	12.5 81 77
2:30	116.5	9.5	12.5 81 77
3:30	116.5	9.5	13.5 81 77
4:30	116.5	9.5	13.5 81 77
5:30	116.5	9.5	13.5 81 77
6:30	116.5	9.5	13.5 81 77
7:30	116.5	9.5	13 82 77
8:30	116.5	9.5	13.5 82 77
9:30	116.5	9.5	12 82 77
10:30	116.5	9.5	12 82 77
11:30	116.5	9.5	12.5 83 218
12:30	116.5	9.5	12 83 230
1:30 PM	114.5	9.5	12.5 83 243
2:30	116.5	9.5	12.5 85 255
3:30	116.5	9.5	12.5 85 267
4:30	116.5	9.5	12 85 279
5:30	116.5	9.5	12.5 85 291

$$47 \overline{) 594} \quad 12.6$$

$$\begin{array}{r} 594 \\ 124 \times 4 \\ \hline 596 \\ 282 \end{array}$$

Total Amps 594  
Average Amps 12.6

# #4 Bath

Time	Volts	Amps	Time	Total	
6	116.5	9.5	13	80	304
7	116.5	9.5	13	80	317
8	116.5	9.5	13	80	330
9	116.5	9.5	13	85	343
10	116.5	9.5	12	84	355
11	116.5	9.5	12	83	367
12	116.5	9.5	12	83	379
1-AM	116.5	9.5	12	83	391
2-AM	116.5	9.5	12	83	403
3-AM	116.5	9.5	12	83	415
4-AM	116.5	9.5	12	83	427
5-AM	116.5	9.5	12	83	439
6-AM	116.5	9.5	12	83	451
7-AM	116.5	9.5	12	83	463
8-AM	116.5	9.5	11.5	80	475
9-AM	117.5	9.5	11.5	80	486
10-AM	116.5	9.5	12	80	498
11-AM	116.5	9.5	12.5	80	510
12-PM	116.5	9.5	12.5	80	522
1-PM	116.5	9.5	14	80	537
2-PM	116.5	9.5	14	80	551
3-PM	116.5	9.5	13.5	87	564
4-PM	116.5	8.5	14	85	578
5-PM	116.5	9.5	15.5	85	594

out  
cleaned  
manifold

mi facc. disc.

20 sec. Electric Cleaner, wash  
in which common water,  
then rinse with distilled

20 cc. in 8-4, then wash in  
whirlor and rinse in  
distilled water; and dry in  
vacuum.

Part in Ni bath dry, probe  
2.5 mm. in. Turn full current  
on. Total amperes 40 in. plated  
Part in copper dry, full  
current on.

#4 Bath at 5:30 PM.

Time	SP	Volts	Watts	Temp	Total
1:20	116.5	9.5	17	85	17
1:30	116.5	9.5	14.5	85	31
1:40	116.5	9.5	14.5	85	46
1:50	116.5	9.5	14.5	85	70
2:00	116.5	9.5	14.5	85	85
2:10	116.5	9.5	14.5	83	99
2:20	116.5	9.5	15	85	114
2:30	116.5	9.5	15	85	129
2:40	116.5	9.5	15	85	144
2:50	116.5	9.5	15	85	159
3:00	116.5	9.5	16	81	175
3:10	117.5	9.5	16	81	191
3:20	116.5	9.5	15.5	81	206
3:30	116.5	9.5	15.5	80	221
3:40	116.5	9.5	15.5	80	236
3:50	116.5	9.5	15.5	80	251
4:00	116.5	9.5	16	80	266
4:10	116.5	9.5	15.5	80	281
4:20	116.5	9.5	15.5	80	296
4:30	116.5	9.5	16	80	311

Transfer from  
# Mi bath



Put in Copper bath dry  
full concentration.

One tree extended  
3/4" out from disc.

#4 Bath					
Start July 17 29 @ 11:30 AM					
Time	Temp	Wt	Temp	Wt	Temp
11:30 AM	116.5	9.5	16.5	93	
12:30	116.5	9.5	16.5	90	16
1:30	116.5	9.5	17.5	90	31
2:30	116.5	9.5	16	85	47
3:30	116.5	9.5	16	85	63
4:30	1170	9.5	16.5	95	71
5:30	1170	9.5	17	93	76
6:30	1170	9.5	17	90	100
7:30	1170	9.5	17	90	130
8:30	1170	9.5	16.5	90	147
9:30	1170	9.5	17	90	164
10:30	1170	9.5	17	89	181
11:30	1170	9.5	17	92	198
12:30	1170	9.5	17	92	215
AM	1170	9.5	17	92	232
1:30	1170	9.5	17	92	249
2:30	1170	9.5	17	92	266
3:30	1170	9.5	16	92	282
4:30	1170	9.5	16	92	298
5:30	1170	9.5	16	90	314
6:30	1170	9.5	16	90	330
7:30	1170	9.5	16	90	346
8:30	1170	9.5	16	90	362
9:30	1170	9.5	16	90	378
10:30	1170	9.5	16	90	

Transfer from  
#1 to #2  
July 17, 20  
105 am  
Mr. Platt

$$\begin{array}{r} 1924.36 \\ 256 \\ \hline 138 \\ 32 \end{array}$$

Total Amps 753  
 " hours 46  
 Average Amps 16.3

July-19-28	AM	Sh	Totals	Comp	Emp	Net
11	1170	9-5	16	90	594	
12	1170	9-5	16	90	418	
100	1170	9-5	16-5	92	426	
2	1170	9-5	16-5	92	443	
3	1170	9-5	16-5	92	443	
4	1170	9-5	16-5	94	473	
5	1170	9-5	16-5	94	492	
6	1170	9-5	17	94	509	
7	1170	9-5	17	94	526	
8	1170	9-5	17	94	543	
9	1170	9-5	18	90	561	
10	1170	9-5	18	90	579	
11	1170	9-5	17	90	579	
12	1170	9-5	17	90	579	
July 19						
1	1170	9-5	17	90	579	
2	1170	9-5	18	90	579	
3	1170	9-5	18	90	579	
4	1170	9-5	18	90	579	
5	1170	9-5	18	90	579	
6	1170	9-5	18	90	579	
7	1170	9-5	18	90	579	
8	1170	9-5	18	90	579	
9	1170	9-5	18	90	579	
10	1170	9-5	18	90	579	



Sharp Edge choa  
 Put in 1st day  
 Rave live 3 minutes, then full  
 current full on.

Put in 2nd day full current  
 Jaws joined after 5th time in bath

Jaws was taken off after  
 30 hours with phabs.

Add 500 cc H<sub>2</sub>SO<sub>4</sub> at 66°  
 Banned at 6 PM July 20, 20.

#4 Bath

Started July 19, 20 @ 10 AM

Time	Sp. no.	Voltage	Temp	Time	Sp. no.
10 AM	1165	9.5	16	90	16
11	1165	9.5	16	90	16
12	1165	9.5	16	94	32
1:00	1165	9.5	17	94	49
2	1165	9.5	17	92	66
3	1165	9.5	17	90	83
4	1165	9.5	17	88	100
5	1165	9.5	17	85	117
6	1165	9.5	17	85	134
7	1165	9.5	17	85	151
8	1165	9.5	14.5	85	165
9	1165	9.5	14.5	85	180
10	1165	9.5	14.5	90	194
11	1165	9.5	14.5	92	209
12	1165	9.5	14.5	92	225

July 20, 20.

11 AM	1165	9.5	15	71	237
2	1165	9.5	15	71	253
3	1165	9.5	15	76	268
4	1165	9.5	15	75	283
5	1165	9.5	15	75	299
6	1165	9.5	15	75	313
7	1165	9.5	15	75	328
8	1165	9.5	15	75	343
9	1170	9.5	15.5	90	358

Transferred  
 from #2 to  
 Bath,  
 July 19, 20  
 102 amp. 102

38/597/157  
 38  
 730  
 226

100 Amps 597  
 " hours 38  
 Average Amp 157

# # 4 Bath

Time	Volts	Amps	Temp	Volts	317
10 AM	116.5	9.5	15.5	90	373
11 -	116.5	9.5	15.5	90	389
12 -	116.5	9.5	16.5	95	405
1 PM	116.5	9.5	16.	93	421
2 -	116.5	9.5	16	89	437
3 -	114.5	9.5	16	89	453
4 -	116.5	9.5	16	88	469
5 -	116.5	9.5	16.5	88	485
6 -	118.0	9.5	16.	88	502
7 -	117.5	9.5	15.5	85	518
8 -	117.5	9.5	15.5	80	533
9 -	117.5	9.5	15.5	80	549
10 -	117.5	9.5	15.5	80	564
11 -	117.0	9.5	17.0	80	581
12 -	117.0	9.5	19.	80	597

Added 800 cc  
 H<sub>2</sub>O at 6:00  
 To other bath  
 at 6:00 pm

Cont



Expt # 51 Copper bath. R.P.M. 53

Vol 27, 20.

Time	Sp. Gr.	Temp.	V. Sol.	Cont.	Vol.	Time
1 hr	12.05	95	10.5	100		
2 hr	"	111	10	100	100	1
3 hr	"	104	10	100	200	2
4 hr	12.10	108	10	100	300	3
5 hr	"	109	10	100	400	4
6 hr	"	110	10	100	500	5
7 hr	"	106	10	100	600	6
8 hr	"	106	10	100	700	7
9 hr	"	110	10	100	800	8

Remarks.

anode  $3\frac{1}{2}$ " from  
cathodes  $9\frac{1}{2}$ " hole in  
rubber disc.

This is first disc.  
after new cooling coils  
were put in.

out

Very much increased  
precipitate

NG

Analysis of solution before start.  
28.470 B.V. gas per liter  
27.71 H<sub>2</sub>SO<sub>4</sub> " "

added 2 lb. 10% B.V. To make a  
" 164 cc H<sub>2</sub>SO<sub>4</sub> standard.

Dec 28 20.

Expen #52

Expen #	Volts	amp	Total	Remarks
1052	114	10	106	
1132	120	10	100	100
1232	108	10	150	200
132	122	10.5	100	300
230	120	10.5	100	400
330	120	11	100	500
430	125	11.5	100	600
530	120	12	100	700
620				800

Reminbas  
 Her piece to off  
 = 5 Expen.

Except about 800  
 #2504

Ant

Experiment 53

Dec. 28, 20.

Time	Vol. of gas	Vol. of air	Temp.	Bar.	Hum.
10:15	12.5	115	95	100	+
15	"	124	10.5	100	100
15	"	119	12	100	200
75	"	118	11.5	100	300
15	12.00	109.5	100	400	4
75	12.00	120	10.5	100	500
15	"	118	11	100	600
15	"	112	10.5	100	700
15	"	119	12	100	800

Experiment 53

Remarks

3 1/8" from anode to

cathode,

9 1/4" hole in rubber stopper.

1/2" from cathode to the

rubber bottle which broke

the screw of the cathode.

53 P.M. notation of this

1 1/2" wide surface

Content of Solution

29.82 gms

29.84 cc. H<sub>2</sub>O

gravity 1205 @ 180 F

Height of these determined

ing more or less high

throughout the run.

Experiment - 54.

Dec 29, 20

Time	Sp. Gr.	Temp.	Vol. Water	Vol. Air	Vol. Gas
2-15	12.00	109	12.5	100	
3-15	"	120	12.5	100	100
4-15	"	133	12.5	100	200
5-15	"	120	13	100	300
6-15	1200	125	13	100	400
7-15	"	133	12	100	500
8-15	"	128	13.5	100	600
9-15	1200	127	13	100	700
10-15	"	130	12	100	800

77

Expt # 54  
Remarks

Duplicate of

53 after spec.

content of column.

is 27.12 1000 500 1000

276.39 gms B.V.

out

Plating active, butting,  
disc base only, few  
nubs, only one to the high  
nubs. Kerosene oil, etc.  
of disc 7-15.

Too much time on steps

Dec 30, 20.

Time	Spindle Temp	Volt	Amp	Stall	Time
11:40	120	14.1	100		
11:42	125	13.1	100	100	1
11:44	131	14	100	200	2
11:46	12.10	11.9	100	300	3
11:48	12.05	11.7	100	400	4
11:50	12.6	14.5	100	500	5
11:52	12.10	11.9	100	600	6
11:54	11.8	13	80	680	7
11:56	12.2	14.5	95	765	8
11:58	12.2	13	85	850	9
12:00	12.6	13	85	935	10
12:02	"	13	85	1020	11

45/1000 Calliper

OK

Expt # 55

Remarks,  
Duplicate of #53  
Expt. Expect critical  
operation by an glass  
25.774 gms B.V. Per liter  
23.60 gms. H<sub>2</sub>SO<sub>4</sub>.  
added 12.14 g B.V.  
" 168.55 H<sub>2</sub>SO<sub>4</sub>

ant

Ran 11 hours @  
100 amp per hour.  
Hant to get thick  
disc to finish off the  
back by Henry.  
Saw mils which may  
cause pits a hen should  
turn down the disc,  
other wise good surface.  
Measure before turning  
55/1000  
after turned the  
is 45/1000

Dec 31 20.

#1 Cook Eper 56

Time	Temp	V. Ht	Depth	State	Remarks
9:30 AM	91	14.5	75		3" from anode.
12:10	94	14	75	75	9 1/2" hole in anode.
12:10	94	14	75	75	1/2" from buffer to cathode.
12:05	112	12	75	150	which breaks down
12:10	100	11.5	75	225	of the solution
12:03	108	11	75	300	So R. P. M. on disc.
12:00	110	11.5	75	375	14 1/2" anode surface.
11:55	110	11.5	75	450	Content of solution
11:45	100	11.5	75	525	same as Eper 55
11:40	113	11.5	75	600	Run at 75 amperes
11:35	117	11.5	75	675	still proper thickness
11:30	113	11.5	75	750	3 rubber discs to hold
11:25	115	11.5	75	825	in place

Clippers 39/1000

New type  
Rotator.

39/1000

Had to lower 1/2" to clear table.



#2 Brock  
Dec 31, 20.

Experiment 57

Time	Volts	Amperes	Watts	Remarks
11:55	12.00	100	11.5	7.5
12:05	"	110	11.5	7.5
12:15	"	110	11.5	7.5
12:25	12.10	111	11.5	7.5
12:35	"	123	11.5	7.5
12:45	"	117	11.5	7.5
12:55	11:45	121	11.5	7.5
13:05	11:45	119	11.5	7.5
13:15	11:4	114	12.5	7.5
13:25	11:45	122	12	7.5
13:35	12.00	116	11	7.5
13:45	"	116	12	7.5

Remarks  
3" from anode  
1/2" baffle to cathode  
10 3/4" anode surface  
covered by liner wires  
depth of anode pot 1 1/2"  
50 R.P.M. on disc.  
Contact of anode with  
this 1/2" hole in wood  
anode chamber

1 1/2"  $\frac{1}{2}$  10 3/4"

Wood anode chamber

282.73 gm. H<sub>2</sub>O per liter  
25.86 cc. H<sub>2</sub>O per  
also added 1 lb. 3.72 BV  
188 cc. H<sub>2</sub>O per

Check on  
New Type Rotator  
while awaiting for rubber  
9 1/4" disc.

Had to lower baffle  
1" to clear track

31/1000 after turned

Clock 1

Jan 4, 21.

Experiment 58

Time	Volts	Amperes	Watts	Remarks
12:05	9.2	8.5	2.0	3" from anode
12:15	9.2	10.5	7.5	1/2" baffle to cathode
12:25	11.5	11.5	7.5	14 1/2" anode surface
12:35	11.5	7.5	16.0	9 1/4" hole in rubber disc
12:45	11.5	7.5	23.5	50 R.P.M. on disc
12:55	12.0	12	7.5	Start at 20 amperes then
13:05	12.5	10.5	7.5	raise after 1/2 hour to 75
13:15	11.8	10.5	7.5	75 amperes, run 7600 rpm
13:25	12.0	10.5	7.5	
13:35	11.5	11	7.5	
13:45	11.8	11.5	7.5	
13:55	11.4	12	7.5	

Remarks  
3" from anode  
1/2" baffle to cathode  
14 1/2" anode surface  
9 1/4" hole in rubber disc  
50 R.P.M. on disc  
Start at 20 amperes then  
raise after 1/2 hour to  
75 amperes, run 7600 rpm  
Very good surface  
only 1/2" high from edge  
Plate yellowed slightly

Stripped and turned  
down to 37/1000

Crack II

Jan. 4, 21

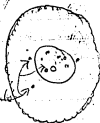
Time	Temp	Wind	Wind Dir	Wind Spd	Wind Dir	Wind Spd
6:12	12.5	7.2	8.5	2.0		
7	12.05	9.2	10.5	7.5	10	1/2
8	12.00	11.8	11.5	7.5	8.5	1 1/2
9	"	11.7	11.5	7.5	16.0	2 1/2
10	12.00	11.8	11.5	7.5	23.5	3 1/2
11	"	11.8	12	7.5	31.0	4 1/2
12	"	12.4	10.5	7.5	38.5	5 1/2
1	12.10	12.0	10.5	7.5	46.0	6 1/2
2	12.00	12.7	10.5	7.5	53.5	7 1/2
3	12.05	11.5	11	7.5	61.0	8 1/2
4	"	11.9	11.5	7.5	68.5	9 1/2
5	12.10	11.3	12	7.5	76.0	10 1/2

Expt #59

Remarks  
Duplicate of No. 58 Expt.

Muds very much closer  
little less than 1/2 in.  
Plating granular effect

Prisms about 1/2 in. high



Small muds

Stripped & turned down  
to 37/1000.

1 pit

#1 Rock

Jan 4, 21

Expt #60

Time	Temp	Wind	Wind Dir	Wind Spd	Wind Dir	Wind Spd
12.00	11.0	12		8.0		
12.05	10.8	12		7.5	16	1 1/2
12.10	11.9	12.5		7.5	8.5	1 1/2
12.15	11.8	13		7.5	16.0	2 1/2
12.20	12.2	13		7.5	23.5	3 1/2
12.25	12.0	13		7.5	31.0	4 1/2
12.30	11.0	13		7.5	38.5	5 1/2
12.35	12.1	12.5		7.5	46.0	6 1/2
12.40	12.5	7.5		53.5	7 1/2	
12.45	12.1	12.5		7.5	61.0	8 1/2
12.50	11.9	12.5		7.5	68.5	9 1/2
12.55	12.1	12.5		7.5	76.0	10 1/2

Remarks

Slip of #58 Expt.  
Except bottom portion  
tipped down, & less  
acid and B.V. content.

Analysis of contents.  
B.V. = 29.5, 8.8 gms Per Lit.  
H<sub>2</sub>SO<sub>4</sub> = 24.85 cc "  
Motor smoked slightly  
Had to cut down to 1000

experiment.  
granular P. & T. is  
very good surface  
quality 12  
Cells per 37/1000



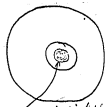
# #2 Brock Jan 5, 24 Epper 61

Time Epper Temp. Vol. Air Temp. Hum. Remarks  
Lump of # 58 Epper

6:00 1200 110 12 20  
6:30 1205 107 12 75 10 1/2  
7:30 1200 120 12 5 75 85 1 1/2  
8:30 1200 113 13 75 160 2 1/2  
9:30 1200 114 13 75 235 3 1/2  
10:30 1240 114 13 75 310 4 1/2  
11:30 " 110 13 75 385 5 1/2  
12:30 " 110 12 75 460 6 1/2  
1 " 120 12 75 535 7 1/2  
2:30 1200 125 11 75 608 8 1/2  
3:30 " 122 11 75 685 9 1/2  
4:30 1145 123 11 75 760 10 1/2 out

caliper 39/1000

granular pitting  
very good surface



Plated slightly low  
in about 2" in center of  
to putting in disc,  
pocket was in center

# #1 Core. Epper 62

Jan 5, 24

Time	Epper	Temp.	Vol.	Air Temp.	Hum.	Remarks
6:00	110	9	20			
6:30	112	12	75	10 1/2		Duplicate of Epper #57
7:30	1145	128	115	75	85 1 1/2	58 Epper #57 in 1/2 in
8:30	1145	130	12	75	160 2	at 20 then 100 lbs at 700 p.
9:30	"	120	125	75	235 3	120°F
10:30	"	123	135	75	310 4	Exhaust by Douglas
11:30	122	135	75	385 5		B.V. 282.03 gals per liter.
12:00	112	14	75	460 6		H2S 04 23.48 cc. " "
1:00	118	135	75	535 7		Gravity 1145 @ 120°F.
2:00	120	14	75	610 8		Iron Acid or B.V. added
3:00	1190	110	135	75	685 9	to this solution since
4:00	1145	117	13	75	760 10 1/2	Epper #57
5:00	1145	120	13	75	777 11	out

#2 Rock  
Jan 6, 21, Exper # 63

Time	Temp	Wt	Wt	Wt	Wt	Wt
10:30	119.5	12.0	12	20		
11:00	119.5	12.0	12	75	10	1/2
12:00	119.5	12.0	12	75	85	1 1/2
1	"	119.5	12.5	75	16	0 2 1/2
2	"	120.0	12.6	12	75	23.5 3 1/2
3	"	120.0	12.4	12	75	31.0 4 1/2
4	"					5%
5	"					6%
6	"					7%
7	"					8%
8	"					9%
9	"					10%
10	"					11

Remarks

Duplicate of # 58  
Run same as # 62

Out  
Descend  
Solution crystals  
in bottom of block  
Bottom of rock section  
became too soft  
Nurse all fresh rock



Toward outside peeling  
granular

#1 Rock  
Jan 7, 21, Exper 64

Time	Temp	Wt	Wt	Wt	Wt	Wt
10:30	119.5	11.0	12	20		
11:00	115	"	"	75	10	1/2
11:30	120	"	"	75	85	1 1/2
12:00	"	"	"	75	160	3 1/2

Remarks

Duplicate of # 58  
Run same as # 62

Descend

Solution crystals  
at bottom of block  
Nurse all fresh  
marked




#2 Rock

Expt # 65

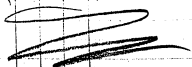
Jan 7, 21

In	Rev	Volts	Amper	Temp	Time	Remarks
12.10	118	8.5	20			3" bathode to anode.
2.30	1210	11.4	75	10		1/4" Baffle under bathode
3.30	120	11.5	75	85		1/2" anode surface
4.30	1210	12.1	75	160		9/4" hole in maple
5.30	122	12	75	235		disc hole covered
6.30						burn.
7.30						50 R.P.M. disc rotate
8.30						Start at 20 Amps
9.30						then raise to 75 A.P.
10						at 110-120° F
						Run 1 1/4 hours.

cut out  
Packmarked  
Plating



1st Expt with  
Maple disc  
and side to hold same



#1 Rock

Expt # 66

Jan 8, 21

In	Rev	Volts	Amper	Temp	Time	Remarks
			20			
			75	85	1 1/2	
1210	115	13	75	160	2 1/2	
1210	120	13	75	235	3 1/2	
	114	13	75	310	4 1/2	
	126	13.5	75	385	5 1/2	

Remarks  
Duplicate  
of # 65 Expt.

Crystals at bottom  
of prock retards  
the flow of current  
and

#2 Crocks  
Jan. 10 21

Exper #67

Remarks

Time	Temp	Volts	amp	Time
3:30	1180	127	105	20
4:00	"	121	115	75
5:00	"	123	115	20
6	"	129	12	75
7	"	125	12	75
8	"	123	12	75
9	"	120	12	75
10	"	128	12.5	75
11	1170	120	12	75
12	1190	130	12.5	75
1	1200	120	"	75
2	"	"	"	75
3	1210	130	13	75
4	"	"	"	75

Caliper after turning by Clancy  
43/1000

3" from cathode to anode  
1/4" baffle under cathode  
14 1/2" anode surface  
9 1/4" hole in maple disc  
the hole covered with  
linen screen.  
Content of solution  
244.56 gms BK for 1 liter  
21.14 cc H2SO4

1st disc after cleaning  
out crystals from anode  
Some are turned out with  
in cooled rock to 50°F

Surface not very  
good. Solution very  
hot. Worked in prop.



much heavier brown rock

Jan. 11, 21

Exper #68

Remarks

Slump of #67 Exper

Except run to  
795 temp 11 hrs.

Time	Temp	Volts	amp	Time
4:00	1210	125	12	20
5	"	125	"	75
6	1200	120	12.5	75
7	"	125	"	75
8	"	119	14	75
9	1195	115	13	75
10	"	120	13	75
11	1195	123	13	75
12	"	121	13	75
1	1200	123	13	75
2	"	119	13.5	75
3	1210	129	14	75
4	1205	121	14	75

Caliper after turning  
by Clancy.  
42/1000



air product  
disc had a small  
center

#2 Crook  
Exp # 69

Jan. 12, 21

Time	Spgr	Temp	Vol	Ampl	Total	Remarks
4:30	1200	118	10	2.0		
5:30	"	113	14	75	10 1/2	
6:30	1190	115	11	75	85	
7:30	"	120	11	75	160	
8:30	1200	"	12	75	235	
9:30	"	120	11	75	310	
10:30	1200	125	11.5	75	385	
11:30	1210	"	11.5	75	460	
12:30	"	"	11.5	75	535	
1:30	"	"	11.5	75	610	
2:30	1200	"	11.5	75	685	
3:30	"	"	11.5	75	760	
4:30	"	"	11.5	37	837	

Remarks:  
Slup of #69  
Except run to 79th  
11 hours  
granular surface

Steam was turned off between 6:30 & 8:30 by someone. Last find reason relation crystallized at bottom of  
Mould bent due to not stripping good.

Could not turn account of it much bent.

#1 Crook  
Exp # 70

Jan. 13, 20

#70 Exp

Time	Spgr	Temp	Vol	Ampl	Total	Remarks
8:30	1210	118	9	2.0		
9:30	1205	118	12	75	10 1/2	
10:30	120	12	75	85	1 1/2	
11:30	1210	120	12	75	160	
12:30	1205	12	75	235	3 1/2	
1:30	"	125	12	75	310	
2:30	1200	137	12	75	385	
3:30	1200	125	12	75	460	
4:30	1205	125	12	75	535	
5:30	1195	122	12	75	610	
6:30	1200	120	12	75	685	
7:30	120	12.5	75	760	10 1/2	
8:30	120	12	75		11 1/2	

Remarks:  
To see what, less acid content would make.  
Extent of solution 294.84 gms. H<sub>2</sub>O in 20.05 cc. H<sub>2</sub>SO<sub>4</sub>.  
due to someone turning off steam, and had to clean out #2 Crook which was very much crystallized.  
Temperature of crook fell to 85° F.

This disc very rotten very much trace at edge and "muds from" of outer edge to center of disc, outer disc little better than muds from outer edge was 3/4" long.

Some muds 1/8" high

Repaired # 71

Jan 14, 21.

Temp	Sp. Hr	Temp	Volts	Amper	Total	Hours
6 <sup>00</sup>	1210	116	8.5	20		
7 <sup>15</sup>	1200	111	12.5	75	10	3 <sup>00</sup>
8 <sup>15</sup>	121	13	75	85	1 <sup>15</sup>	1 <sup>15</sup>
9 <sup>15</sup>	1200	122	14	75	16.0	2 <sup>15</sup>
10 <sup>15</sup>		120	13.5	75	23.5	3 <sup>15</sup>
11 <sup>15</sup>	1200	120	13	75	310	4 <sup>15</sup>
12 <sup>15</sup>	1200	122	13	75	385	5 <sup>15</sup>
1 <sup>15</sup>	"	119	13.5	75	460	6 <sup>15</sup>
2 <sup>15</sup>	"	125	13.5	75	535	7 <sup>15</sup>
3 <sup>15</sup>	"		13.5	75	610	8 <sup>15</sup>
4 <sup>15</sup>	1245			75	685	9 <sup>15</sup>
5 <sup>15</sup>				75	760	10 <sup>15</sup>
6 <sup>15</sup>				75	845	11 <sup>15</sup>

Remarks

Content of solution  
294.8 grams B.V.  
Per liter  
20.05 cc H<sub>2</sub>SO<sub>4</sub>  
Per liter  
added 200 cc H<sub>2</sub>O  
to total acid solution  
25.00 cc Per liter

Caliper 36 | 1000  
OK

Jan 14, 21

Temp	Sp. Hr	Temp	Volts	Amper	Total	Hours
11 <sup>00</sup>	125	120	20			
11 <sup>15</sup>	130	"	75	10	1/2	
"	"	"	75	85	1	
11 <sup>45</sup>	"	12.5	75	160	2	
"	"	"	75	235	3	
12 <sup>00</sup>	132	"	75	310	4	
12 <sup>05</sup>	130	"	75	385	5	
12 <sup>10</sup>	125	13.5	75	460	6	
"	137	12.5	75	535	7	
12 <sup>15</sup>	128	12.5	75	610	8	
12 <sup>20</sup>	131	12.5	75	685	9	
"	128	12.5	75	760	10	
"	127	12.5	75	845	11	

Exp # 72

Remarks

Content of solution  
283.41 B.V. grams  
23.34 H<sub>2</sub>SO<sub>4</sub> cc  
added 80 cc H<sub>2</sub>O  
to make 25 cc H<sub>2</sub>SO<sub>4</sub>  
per liter

out  
This would be perfect  
while on the lathe  
raising a dim in  
the label and had  
to turn down to  
make a smooth  
surface, which  
when caliper  
measured 30/1000

30/1000



New Steam coil

Jan 15, 21.

Time	Sp/Pr	Temp	Wts	Dep	Tot. d	Hum
1 "	1200	112	9	20		
1:30 "	120	12	75	10	1/2	
2:30 "	1200	125	12.5	75	85	1
3:30 "	"	116	14	75	160	2
4:30 "	1205	119	13.5	75	235	3
5:30 "	"	124	13.5	75	310	4
6:30 "	"	124	13.5	76	385	5
7:30 "	"	140	14	75	460	6
8:30 "	1205	129	13.5	75	535	7
9:30 "	"	136	13.5	75	610	8
10:30 "	"	133	14	75	685	9
11:30 "	1195	130	14	75	760	10
12:30 "	"	133	"	37	797	11

Expt #73

Remarks  
Duplicate of #72 Expt.

Content of Solution

265.70 gms BK Per Water  
19.50 cc H<sub>2</sub>SO<sub>4</sub>  
added 2 dl 20% BK  
264 cc H<sub>2</sub>SO<sub>4</sub>

Sp. med. solution  
285. BV + 250 cc H<sub>2</sub>O

out

Put in new Steam coil

37/1000 thick

OK

Pinch packed & turned  
Emulsion away

Jan 17, 21

Expt #74

Expt	Temp	Volt	Amp	Stat	Hum
1	1200	130	11	20	1.0
2	"	135	"	75	85
3	1210	140	11	75	160
4	1190	130	12	75	235
5	1190	125	12.5	75	310
6	1195	135	12.5	75	385
7	1195	135	12.5	75	460
8	"	"	"	75	535
9	1198	130	13	75	610
10	"	132	13	75	685
11	1200	135	"	75	760
12	"	"	"	37	797

Remarks

Content of solution  
242.27 gms BK Per Water  
18.26 cc H<sub>2</sub>SO<sub>4</sub>  
added 324 cc BK Per Water  
" 296 cc H<sub>2</sub>SO<sub>4</sub>  
to make sol. 285. BV + 250 cc H<sub>2</sub>SO<sub>4</sub>

Sign of disc. is to the left

9

Isolated disc because of a hollow center when moulds put in if they were the least bit concave they would carry a low plated center.



How water holds an air pocket when put down perpendicular. Reason why off at the side.

40/1000  
OK



Jan. 18, 21.

TIME	Sp. S.	Temp	Vol	Ang	Total	Rev.
10-	1190	125	10	20		
10 <sup>30</sup>	"	130	12	75	10	1/2
11 <sup>30</sup>	"	135	12	75	85	1 1/2
12 <sup>30</sup>	"	140	13	75	160	2 1/2
1 <sup>30</sup>	1200	140	13	50	230	3 1/2
2 <sup>30</sup>	"	140	"	50	280	4 1/2
3 <sup>30</sup>	"	145	13.5	60	340	5 1/2
4 <sup>30</sup>	1190	"	"	60	390	6 1/2
5 <sup>30</sup>	"	"	"	65	450	7 1/2
6 <sup>30</sup>	"	"	14	75	525	8 1/2
7 <sup>30</sup>	1200	140	"	75	590	9 1/2
8 <sup>30</sup>	1190	130	"	75	665	10 1/2
9 <sup>30</sup>	"	135	14 1/2	75	740	11 1/2
10 <sup>30</sup>	"	"	"	75	815	12

Expt #75

Remarks.  
Duplicate of #148

Resistent of solution

287.43 B.V. gas per liter  
24.44 H<sub>2</sub>SO<sub>4</sub> "

add 2 lbs B.V.  
" 150 cc H<sub>2</sub>SO<sub>4</sub>

Use to crystals in  
bottom of work  
pannel 50 drops

Repairman turned off steam to  
pumps

Allowed to  
another empty  
space OK  
Steam was leaked out of  
pumpman had to ask for help  
last morning. Taps were  
off and pump stop

Jan. 19, 21.

TIME	Sp. S.	Temp	Vol	Ang	Total	Rev.
1215	130	130	10	20		
"	132	10	75	10	1/2	
"	135	"	75	85	1 1/2	
1230	135	10	75	160	2 1/2	
"	135	10	75	235	3 1/2	
"	138	10.5	75	310	4 1/2	
"	135	10.5	75	385	5 1/2	
"	132	10.5	75	460	6 1/2	
"	130	10.5	75	535	7 1/2	
"	135	10.5	75	610	8 1/2	
"	138	"	75	685	9 1/2	
"	140	"	75	760	10 1/2	
"	"	"	37	797	11	

Expt #76

Remarks.  
Had no in face disc

no took a sample  
will turn out to be  
then give it in for further  
Resistent of solution

278.84 gms B.V. per liter  
28.22 cc H<sub>2</sub>SO<sub>4</sub> "

added 1 lbs B.V.

Out.

Caliper 36 / 1000 OK

OK

The wood angle piece broke off  
the piece which holds piece in bottle  
and lost made sample



Jan. 20, 21. Exper #77

In	Sp. Vol	Temp	Volt	Amp	Stal	Wtr
2	119.5	135	10.	20		
230	"	140	10.	75	10	1/2
330	1130	137	10.	75	85	1 1/2
430	119.5	135	10.	75	160	2 1/2
530	"	132	"	75	235	3 1/2
630	1190	135	11	75	310	4 1/2
730	"	140	"	75	385	5 1/2
830	"	140	11.	75	460	6 1/2
930	1195	135	11.	75	535	7 1/2
1030	"	135	11.	75	610	8 1/2
1130	"	120	"	11.5	75	685
1230	"	135	12.	75	760	10 1/2
1330	1190	"	12.	87	997	11

Remarks.

Content of solution  
278.94 gms Bk. Resin liter  
2299 cc H<sub>2</sub>SO<sub>4</sub> "  
added to the 11 g  
11 cc Bk.  
97 cc H<sub>2</sub>SO<sub>4</sub>  
Mr Edison Memo  
Female which has been  
pulled off, near in  
in bath 60 Amps  
1 1/2 million then back  
up in 75 Amp 60 Amp  
bath to 79% Ant  
Cut

turned down and  
make 2 test print  
to see if any trace  
arises.

Calypso  
36/1000

Jan. 24, 21.

In	Sp. Vol	Temp	Volt	Amp	Stal	Wtr
190	135	11.	20			
1195	"	11.5	75	10	1/2	
1190	"	11.5	75	85	1 1/2	
"	"	11.5	75	160	2 1/2	
"	"	11.5	75	235	3 1/2	
1195	130	12.	75	310	4 1/2	
"	130	12.	75	385	5 1/2	
"	"	"	75	460	6 1/2	
"	"	"	75	535	7 1/2	
"	"	"	75	610	8 1/2	
"	"	"	75	685	9 1/2	
"	"	"	75	760	10 1/2	
"	"	"	35	995	11.	

Exper #78

Remarks

This is experiment  
#12 in lake  
To be turned and  
2 prints made  
to see if any  
trouble arises, on  
for memo of Mr Edison  
Except did not put  
any regular nickel  
bath pan in last  
plate in bath & his  
to 60 amp.  
Cut

Steam coil eaten through & his  
before my finished  
oil lasted 10 days.

2nd disc from Rubber  
1st disc after angle of  
disc was changed 3/4  
to foot 1 1/4

Jan. 25, 21.

Expts #79

Remarks

Time	Spd	Temp	Volt	Emp	Watt	Emp
4:15	1195	135	10	20		
5:15	"	"	10	75	10	1
6:15	1200	140	11	25	85	2
7:15	"	"	11	75	160	3
8:15	"	"	11	75	235	4
9:15	1195	"	11	75	310	5
10:15	"	"	11	75	385	6
11:00	1135	115	7.5	440	7	
12:30	1200	"	"	535	8	
3:30	1190	"	"	816	9	
4:30	"	"	"	685	10	
5:30	1195	"	"	750	11	

See what difference  
add sheels against  
the electrode jar.  
and steam boiler  
wood tank to hot  
Content of solution  
289.50 gms BV per liter  
12.14% of H<sub>2</sub>SO<sub>4</sub> "  
added 475 cc H<sub>2</sub>SO<sub>4</sub> "  
make standard

1st Expt. m.  
Rutherford  
Caliper 43 1000

Expts #80

Remarks.

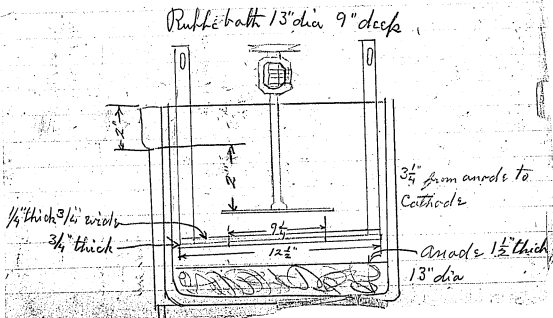
Replicate of Expts #79

Time	Spd	Temp	Volt	Emp	Watt	Emp
12:00	130	10	20			
"	"	10	75	10	12	
"	"	10	75	85	12	
"	135	10.5	"	160	27	
1195	"	10.5	"	235	34	
1200	"	10.5	"	310	44	
"	130	11	"	385	56	
"	135	11	"	460	67	
"	"	11.5	"	535	77	
"	140	12	"	610	87	
"	145	12.5	"	685	97	
1195	140	"	"	760	108	
140	"	"	"	37	797	11

Content of Sol  
297.76 BV gms R. liter  
22.24 H<sub>2</sub>SO<sub>4</sub> cc "  
add to make standard  
sol. 116 cc H<sub>2</sub>SO<sub>4</sub> "  
Crystallized at bottom  
after run was finished.  
Pleaseing before turned  
OK granular

Caliper 43 1000  
very good

[ITEM(S) FOUND IN BOOK]



Expt # 81

Inch	Spgr	Temp	Vt	Wt	Total	Wt
130	1190	135	19	20	10	$\frac{1}{2}$
2	"	140	"	75	10	$\frac{1}{2}$
3	"	140	"	75	85	$\frac{1}{2}$
4	1200	145	85	75	160	$2\frac{1}{2}$
5	1190	150	"	75	235	$3\frac{1}{2}$
6	"	152	"	75	310	$4\frac{1}{2}$
7	"	150	"	75	385	$5\frac{1}{2}$
8	1200	"	"	75	460	$6\frac{1}{2}$
9	1190	"	"	75	535	$7\frac{1}{2}$
10	"	"	"	95	75	$8\frac{1}{2}$
11	"	"	"	75	685	$9\frac{1}{2}$
12	"	"	"	75	760	$10\frac{1}{2}$
1230	"	"	"	37	797	11

Remarks  
 Duplicate of # 80  
 Except not disc  
 jar with filter, etc  
 19% marble dust  
 taken out.



Cent.

28/1000 thick  
 Too thin for use

↑  
 too much to  
 fight rough plate

Content of Sol

299.41 gms 87 Per Cent  
 17.03/12.504...  
 add 336 cc H<sub>2</sub>O  
 2 liter water

Feb 2, 21

Expt # 82

Inch	Spgr	Temp	Vt	Wt	Total	Wt
1190	140	6	20			
"	130	95	75	10	$\frac{1}{2}$	
"	140	"	"	85	$1\frac{1}{2}$	
1200	"	"	"	160	$2\frac{1}{2}$	
1190	140	"	"	235	$3\frac{1}{2}$	
"	"	"	"	310	$4\frac{1}{2}$	
"	137	"	"	385	$5\frac{1}{2}$	
"	135	"	"	460	$6\frac{1}{2}$	
"	137	"	"	535	$7\frac{1}{2}$	
"	140	"	"	610	$8\frac{1}{2}$	
1200	"	"	"	685	$9\frac{1}{2}$	
1190	"	"	"	760	$10\frac{1}{2}$	
"	137	"	37	797	11	

Remarks  
 new table as it  
 will be for regular  
 production

Anode 7% marble dust  
 cathode

1 1/2" x 10 1/8" anodes

Had to take off beads  
 at outer edge.

This is first disc at new table

4/1000 after turning

OK





Feb 5, 21.

Expt #85

Time	Sp. In	Temp	Volt	Amph	Still	Rev.
5:30	1190	132	8	20		
6	"	"	9	75	10	1/2
7	"	"	9	75	85	1 1/2
7 1/2	"	135	"	75		2 1/2
9	"	"	"	75		3 1/2
10	"	132	"	75		4 1/2
11	"	"	"	75		5 1/2
12	"	135	11.5	75		6 1/2
1	"	12.00	"	75		7 1/2
2	"	"	10	75		8 1/2
3	"	"	"	75		9 1/2
3 1/2	"	"	"	75		10 1/2
4:30	"	"	"	37	199	11

Remarks  
Duplicate of #84  
Expt

Caliper 47 / 1000

Feb 8, 21

Expt #86

Time	Sp. In	Temp	Volt	Amph	Still	Rev.
5:30	1190	130	9	20		
6	"	"	12	75	10	1/2
7	"	135	"	75	85	1 1/2
7 1/2	"	139	"	"		2 1/2
9	"	145	"	"		3 1/2
10	"	"	9	"		4 1/2
11	"	190	9	"		5 1/2
12	"	"	12	"		6 1/2
1	"	"	"	"		7 1/2
2	"	"	"	"		8 1/2
3	"	"	"	"		9 1/2
3 1/2	"	"	"	"		10 1/2
4:30	"	"	"	797	11	

Remarks

Refilled anode chamber, 4 Expts. inents made and shot used up equal to 1/4 thick x 10 1/2 surface. This disc is 2" from anode. Removed baffle to see what happens.

Out

New copper heating coil to collection lined put in last one stood 8 weeks.

Caliper 42 / 1000

Pick up dirt at center (x x x) makes rougher plating than within the baffles. Was no other wire plated good.

# Expt #87

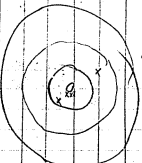
Time	g	h	Volt	Amps	Total hrs
930	1190	135	9.7	20	
4	"	"	12	75	10 1/2
5	"	"	"	75	85 1/2
6	"	"	"	"	2
7	"	"	"	"	3
8	"	"	11	"	4
9	"	"	11	"	5
10	"	"	"	"	6
11	"	"	"	"	7
12	"	"	140	95	8
1	"	"	"	"	9
2	"	"	135	"	10 1/2
3	"	"	"	"	11

Remarks  
Cathode 2" from  
anode removed  
the baffle which  
stops the pencil  
to see what happens

This is a duplicate  
of Expt #86.

Picks up small  
10% particles dirt which  
makes mubs that  
show up as patches  
when turned by letter

Caliper  
41/1000



# Feb 9, 21

# Expt #88

g	h	Volt	Amps	Total hrs
1200	135	9.5	20	
"	"	"	75	10 1/2
"	"	"	"	85 1/2
"	"	"	"	2 1/2
"	"	"	"	3 1/2
"	"	"	"	4 1/2
"	"	"	"	5 1/2
"	"	"	"	6 1/2
"	"	"	"	7 1/2
"	"	"	"	8 1/2
"	"	"	"	9 1/2
"	"	"	"	10 1/2
"	"	"	"	11 1/2

Remarks  
Transfer from  
from Expt #46  
in plate  
any matter  
probably building  
Rust 1/2 from anode  
No baffle to stop  
swirl  
1 hr at 100amps  
1 " " 60 "  
9 1/2 Then in before back of  
to 797 Amps  
1 hr at 20 Amps  
10 1/2 " " 75 Amps  
then stop and anode  
2 points for test plate

retent of 200  
295 gms BK Rn liter  
26.00 Hz Soln liter

Match up Expt #91  
with Expt #88

Feb. 10, + 11, 24.

Egger #89

Time	Sp. In	Imp.	Volt	Ap	Stk	Ans	Remarks
9:30	1180	95	9.	20			Mr. Sullivan sent
10	"	"	12.	75	10	1/2	Memo to Mr. Egger
11	"	"	13.	75	85	1 1/2	asking to make a
12	"	"	"	68	160	2 1/2	special account
1	"	"	"	69	228	3 1/2	of foot plotting job
2	"	"	"	72	297	4 1/2	for a conversion
3	"	"	"	73	369	6 1/2	for MASON'S outfit
4	"	"	"	72	442	6 1/2	Wm. Filippus house
5	"	"	"	75	514	7 1/2	Male Chart
6	"	"	12	75	89	8 1/2	Model # 3333-B
7	"	"	"	78	664	9 1/2	Content of Sol
8	"	"	"	75	722	10 1/2	290.09 gms B.V. Pylus
9	"	"	"	75	797	11 1/2	22.61 cc H <sub>2</sub> O @ 20°
10	"	"	"	37	812	12	add 700 cc H <sub>2</sub> O
11	"	"	"	"	"	"	112 cc H <sub>2</sub> O @ 20°

Mr. faced in regular bath

This matter to make a working female

OK

Egger #90

Time	Sp. In	Imp.	Volt	Ap	Total	Hrs.	Remarks
							Making for working model from Egger #89
							Model # 3333-B-1
							Transferred from Egger #48

Content 20 Amp. each  
 then 15 amp. for 12 hrs.  
 ran 15 1/2 hrs

OR

This working female made a working model gave to Mr. Fubling Feb. 12, 21.

OK



Sunday Feb. 13 20 Eps 93

Temp average 85°F A.R.

24 1/2 hrs

12.1 amps

Cold Plate

OP 1631

Wrote to

OP 1631

Send to potatoe and

OP 1631

Feb. 15, 21

Expt #94

Time	Temp	Volts	Amps	Notes
10:00	85	10.2	1.0	
10:15	85	10.2	1.0	

Run without 10 amps  
" 10.2 " " 75 "

Send from Expt #94 to plate

OP 1631

Thermal melting working model

for # 3491 C-1

1000 gms pure M.P. 1631 working model

Feb. 16, 21.

M. M. M.

Feb. 17, 21

Egg #95

Time	Temp	Volts	Amperes	Total	Remarks
9:30	120	130	9	2.0	
10	"	"	11	7.5	
11	"	"	10.5	"	
12	"	"	"	"	
1	1240	"	"	"	
2	1300	135	"	"	
3	"	"	"	"	
4	"	140	"	"	
5	1210	135	"	"	
6	1200	130	"	"	
7	1200	"	"	"	
8:30	"	"	"	"	

Keep temp down  
130°F & not over 140°F  
Want to see if the  
nubs will be  
eliminated.  
Vid not do it  
nubs same as  
usual, other  
part OK plates  
out

OK Plate

Had to knock nubs  
off after 9 hrs. later

Feb. 18, 21

Egg #96

Time	Temp	Volts	Amperes	Total	Remarks
9:30	120	130	9	2.0	
10	"	"	10.5	7.5	
11	"	"	"	8.5	
12	1205	135	"	"	
1	1200	"	"	"	
2	"	"	"	"	
3	"	"	"	"	
4	1205	"	"	"	
5	"	130	"	"	
6	"	"	"	"	
7	"	"	"	"	
8	"	"	"	"	
9	"	"	"	"	
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Feb. 21.

Inch	Sp. Gr.	Imp.	Vol.	Temp.	Total	Wt.
9.30	1220	130	9	21	70	1/2
10	"	"	10.5	75	85	1/2
11	"	"	10	"	"	2 1/2
12	"	"	"	"	"	3 1/2
1	"	"	"	"	"	4 1/2
2	"	"	"	"	"	5 1/2
3	"	"	"	"	"	6 1/2
4	"	"	"	"	"	7 1/2
5	"	"	"	"	"	8 1/2
6	"	"	"	"	"	9 1/2
7	"	"	"	"	"	10 1/2
8	"	"	"	"	"	"
8.30	"	"	"	"	797	11

Experiment #97

Remarks

Try to get rid of  
mils. Keep gravity at  
1220 at 130°  
~~1220~~  
The mils have  
slightly changed  
their flow and  
more closely fit

Plating OK  
Had to knock off the  
mils after 9 hrs plating

Feb. 23 21.

Inch	Sp. Gr.	Imp.	Vol.	Temp.	Total	Wt.
9.30	1220	130	8.5	20	75	10 1/2
10	"	"	9	75	85	1 1/2
11	"	"	"	"	"	2 1/2
12	"	"	"	"	"	3 1/2
1	"	"	"	"	"	4 1/2
2	"	"	"	"	"	5 1/2
3	"	"	"	"	"	6 1/2
4	"	"	"	"	"	7 1/2
5	"	"	"	"	"	8 1/2
6	"	"	"	"	"	9 1/2
7	"	"	"	"	"	10 1/2
8	"	"	"	"	"	"
8.30	"	"	"	"	75	11

Experiment #98

Remarks

Try to get rid of  
mils. Keep gravity  
at 1230 at 130°

Plating OK  
Had to knock off the mils  
after 9 hrs plating.

Feb. 24, 21

Time	Sp. No.	Long	Lat	Alt	Wind	Dir.
2	1200	130	10.	20		
230	"	"	10.	75	10	
330				85		
430						
530						
930						
1030						
1130						
1230						
130						
230						
330						
4						

Epper #99

New duplicate of Epper #96

Watch for brush on outer margin.

Regular quantity

Content 200 Gr. S. O. (1200 @ 1300 F)

7 1/2 27 H. 200 1300 F

9 1/2 10 1/2 11

#5269-A  
Enatic Experiment  
March 1, 21

Turn out at 5:00 p.m.

Epper #100

Sp. No.	Long	Lat	Alt	Wind	Dir.	Remarks
1200	130	10	75	200		Reading "meters" from
1230	"	"	"	275	1	new solid section
"	"	"	"	350	2	new channeled
"	"	"	"	425	3	work + sample of the
"	"	"	"	500	4	connected to stream
"	"	"	"	575	5	Blocked up with 200
"	"	"	"	650	6	amps. in, regular
"	"	"	"	725	7	with 100 ft. of
"	"	"	"	800	8	plating

1st Easter  
Selection



Easter Supplement # 5269-B  
March 1/21

Experiment 70

Time	Sp. No.	Temp.	Volt	Days	Total hrs.	Working
10 <sup>th</sup>	12 <sup>th</sup>	130	10	75	200	female: N. vol.
11	"	"	"	75	275	anode chamber
12	"	"	"	75	350	high voltage 10
1	"	"	"	75	425	wood enough
2	"	"	"	75	500	fastened to it
3	"	"	"	75	575	brushed up
4	"	"	"	75	650	200 amp. the face
5 <sup>th</sup>	"	"	"	75	725	plate
16 <sup>th</sup>	"	"	"	75	800	84 out

2nd  
Easter Selection

Easter Supplement # 5269-C  
March 1/21

Experiment 70

Time	Sp. No.	Temp.	Volt	Days	Total hrs.	Remarks
10 <sup>th</sup>	12 <sup>th</sup>	130	10	75	300	Backed up with
11	12 <sup>th</sup>	130	10	75	375	300 amp. rough
12	12 <sup>th</sup>	130	10	75	450	then first plate
1	12 <sup>th</sup>	130	10	75	525	in both with
2	12 <sup>th</sup>	130	10	75	600	maple anode chamber
3	12 <sup>th</sup>	130	10	75	675	+ baffles on up rights
4	12 <sup>th</sup>	130	10	75	750	10.750
5	12 <sup>th</sup>	130	10	75	825	see c.p. of water to
6	12 <sup>th</sup>	130	10	75	900	find, lots of deposition
7	12 <sup>th</sup>	130	10	75	975	at 10.25, 10.00
8	12 <sup>th</sup>	130	10	75	1050	water at 11.00
9	12 <sup>th</sup>	130	10	75	1125	added 100 cc of
10	12 <sup>th</sup>	130	10	75	1200	water

3rd  
Easter Selection

Easter Supplement  
#4336a  
March 20

Egg 103

Time	Sp. In	Inj. In	Volt	Ampl	Total	How
530	12.5	130	10	75	300	
630	12.5	"	"	75	375	
730	12.5	"	"	75	450	
830	12.5	"	"	75	525	
930	12.5	"	"	75	600	
1030	12.5	"	"	75	675	
1130	12.5	"	"	75	750	
1230	12.5	"	"	75	825	

Remarks  
Mixing master for  
back up reg. H<sub>2</sub>O  
300 Amps, reg.  
back then for 1st  
plate - solid  
butter amide.  
Chamber - Heaps  
Caffee, at 9:30 D  
added 500 c.c.  
quater to 4000  
rate of evaporation  
at 10:30 1000 c.c.  
Quater, at 11:30  
added 1500 c.c. of  
water.  
Booth with  
rubber amide  
chamber - less  
and down, not  
give too much

4th Easter Selection

Easter Supplement  
#3433-C Jan. 2/21

Egg 104  
Remarks

Time	Sp. In	Inj. In	Volt	Ampl	Total	How	Making / use to
12.5	130	10	75	235			female, back up
12.5	130	10	75	310	1		reg. back 235 days
12.5	130	10	75	385	2		then past plate
12.5	130	10	75	460	3		Butter amide
12.5	130	10	75	535	4		chamber, at 11:40
12.5	130	10	75	610	5		added 200 c.c. water
12.5	130	10	75	685	6		
12.5	130	10	75	760	7		
12.5	130	10	75	835	8		Cent

5th Easter Selection

Eastern Supplement  
# 4336-B  
Mar. 2/21

Exp. 104

Remarks.

Time	Spk	Long	Wet	Ang	Total	How.
10:45	125	130	10	75	235	
11:45	122	130	10	25	310	1
12:45	122	"	"	75	385	2
1:45	1220	"	"	75	460	3
2:45	1220	"	"	75	535	4
3:45	"	"	"	75	610	5
4:45	"	"	"	75	685	6
5:45	"	"	"	75	760	7
6:45	"	"	"	75	835	8

breaking, mostly  
fence, Car. M.  
legs, leg. 1st  
with 2nd, 7th  
fast plate, W. 1st  
and 4th  
at 11:45 added  
1500 c. c. water.

Qut

6th  
Eastern Selection

Eastern Supplement  
# 4002 B-1

Exp. 105

Time	Spk	Long	Wet	Ang	Total	How.
10:45	1229	130	10	75	125	
11:45	1222	130	10	75	200	1
12:45	1222	130	11	75	275	2
1:45	1223	130	10	75	350	3
2:45	1223	130	10	75	425	4
3:45	1223	130	10	75	500	5
4:45	1220	"	"	75	575	6
5:45	"	"	"	75	650	7
6:45	"	"	"	75	725	8
7:45	"	"	"	75	800	9

breaking, female  
breaking, 1st  
1st, at 7:45  
add 1500 c. c. 1/2  
1st, at 7:45  
add 1500 c. c. 1/2  
After.

Qut

7th  
Eastern Selection

# Expt #106

Time	Sp. gr.	Temp	Volt	Amper	Stk	Remarks
3:00	1220	130	10	20		Working female
3:30	"	"	"	75	10 1/2	#5269 A1
4:30	"	"	"	"	85 1 1/2	from #5649
5:30	"	"	"	"	160 2 1/2	hi face
6:30	"	"	"	"	235 3 1/2	Back up 11 hrs
7:30	"	"	"	75	310 4 1/2	lw.
8:30	1210	"	"	"	365 5 1/2	
9:30	1212	"	"	"	460 6 1/2	
10:30	1218	"	"	70	530 7 1/2	
11:30	1219	"	"	70	600 8 1/2	
12:30	1222	"	"	70	670 9 1/2	
1:30	1219	"	"	70	740 10 1/2	
2:45	"	"	"	70	810 11	Out 3:30

add 1 1/2 hr.

8th  
Easter Selection

# Expt #107

Time	Sp. gr.	Temp	Volt	Amper	Stk	Remarks
2:00	1220	130	10	20		Working female
2:30	"	"	"	75	10 1/2	#4336 B1
3:30	"	"	"	"	85 1 1/2	from Expt #57
4:30	"	"	"	"	160 2 1/2	hi face
5:30	"	"	"	"	235 3 1/2	Back up 11 hrs
6:30	"	"	"	"	310 4 1/2	lw.
7:30	"	"	"	"	365 5 1/2	
8:30	1210	130	10	"	460 6 1/2	
9:30	1212	"	"	"	535 7 1/2	
10:30	1218	"	"	70	605 8 1/2	
11:30	1219	"	"	70	675 9 1/2	
12:30	1222	"	"	70	745 10 1/2	
1:30	1219	"	"	70	815 11	Out

9th  
Easter Selection

Set 1 1/2 hr.  
because of  
fertility resistance  
Carbina. Add 1 hr.  
at together, 2 3/4  
hr. Out at 4:00

# Experiment #109

Time	Exp. Temp	Volt	Amp	Total	Hz	Remarks
5:46	1238 130	8	75	120		Nothing working
6	1233 "	8	75	195	1	female
7	" "	"	75	270	2	#5269C-1
8	" "	"	50	320	3	Had 120 Amp sharp
9	" 125 10	50	370	4	4	lopping, then picked
10	" 130 "	75	475	5	5	
11	" " "	75	520	6	6	
12	" " "	75	595	7	7	#58 in Exp. used
1	" " "	75	670	8	8	in fire on this
2	" " "	75	775	9	9	moiled.
3	" " "	75	820	10	10	Out
4	" " "				11	

10th Easter Selection

# Experiment #109

Time	Exp. Temp	Volt	Amp	Total	Hz	Remarks
5:46	1238 130	8	75	130		Nothing
6	1233 "	"	75	205	1	1 master female
7	" "	"	75	280	2	#3995 A
8	" "	"	50	330	3	Had 130 Amp sb-
9	" 125 11.0	50	380	4	4	plate copper, then
10	" 130 "	75	475	5	5	first played
11	" " "	75	530	6	6	
12	" " "	75	605	7	7	
1	" " "	75	680	8	8	was in fire on both
2	" " "	75	755	9	9	
3	" " "	75	830	10	10	Out
4	" " "				11	

#11 Easter Selection

March 4, 21

Time	Supp.	Temp	Wet	Amps	Total Hrs.
5:30	12:20	11:20	8	150	8
4:30	"	"	"	75	225 1
5:30	"	"	"	75	300 2
6:30	"	"	"	75	375 3
7:30	"	"	"	75	450 4
8:30	"	"	"	75	525 5
9:30	12:23	"	"	75	600 6
10:30	"	"	"	75	675 7
11:30	"	"	"	75	750 8
12:30	"	"	"	75	825 9

Eggs #11

Remains  
Working mould  
3793 1/2  
had 150 amps  
slow plate, then  
backed up with  
9 hrs fast plate

Cut

12th Easter  
Selection

March 4, 21

Time	Supp.	Temp	Wet	Amps	Total Hrs.
"	12:20	12:5	8	295	
"	"	"	"	75	325 1
"	"	"	"	75	400 2
"	"	"	"	75	475 3
"	"	"	"	75	550 4
"	"	"	"	75	625 5
"	12:23	"	"	75	700 6
"	"	"	"	75	775 7
"	"	"	"	75	850 7 1/2

Eggs #111

Remains  
Working mould  
4433 1/2  
had 275 amp/22 drive  
plate, then backed  
up with 7 1/2 hrs  
fast plate in

Cut

3th Easter  
Selection

March 5, 21.

Eyes. # 11  
Remarks

Time	Sp.	Temp	Vol	Aug	Total	Obs	Making
11:30 AM	1223	130	8	75	75		female
12:20	1224	"	"	75	150	1	#4336-B
1:30	"	"	"	75	225	2	Had 75 augs
2:20	1225	"	"	75	300	3	slow plating -
3:20	"	"	"	75	375	4	then backed up
4:20	"	"	"	75	450	5	with 10 hrs. fast
5:30	"	"	"	75	525	6	plating.
6:20	"	"	"	75	600	7	
7:30	"	"	"	75	675	8	
8:20	1226	130	8	75	750	9	
9:20	"	"	"	75	825	10	Out

11th Easter  
Selection

March 5, 21.

Eyes. # 113

Remarks

Time	Sp.	Temp	Vol	Aug	Total	Obs	Making
11:30 AM	1224	130	8	75	85		male
2	1223	"	"	160	1		#4433C-1
3	"	"	"	230	2		Had 85 augs
4	50	"	"	305	3		slow plating
5	"	"	"	380	4		- then back up
6	"	"	"	455	5		eyes with 10 hrs.
7	"	"	"	530	6		fast plating
8	"	"	"	605	7		
9	1220	130	8	670	8		
10	"	"	"	755	9		
11	"	"	"	830	10		Out

15 Easter  
Selection

# Experiment on a Core

Expt. # 114

Remarks.

Time	Sp. gr.	Temp.	Volt	Age	Total	His
2:30	1220	78°	4½	1		
3:30	1220	78°	4½	2	1.2	1
4:30	1220	78°	4½	2	3	2

Plating  
Core - covered  
with a thin layer  
of machine oil  
then with graphite  
by Fred. C. L.  
Special  
Copper plate  
- wood  
chamber holding  
a few shot, with  
plating  
from top down  
at end of 2½ hrs.  
Core was clear  
bottom had some  
under graphite  
graphite pulled off  
easily because of  
blister.

4.0 in  
for  
P

acid 14 hrs.

March 8/21

Expt. # 115

Remarks.

Time	Sp. gr.	Temp.	Volt	Age	Total	His
0:45	1223	130°	8	75	140	
1:45	1230	130°	8	75	215	1
2:45	1230	130°	8	75	290	2
3:45	1223	130°	8	75	365	3
4:45	1223	130°	8	75	440	4
5:45	1223	130°	8	75	515	5
6:45	1223	130°	8	75	590	6
7:45	1223	130°	8	75	665	7
8:45	1223	130°	8	75	740	8
9:45	1223	130°	8	75	815	9

Making a  
working record  
# 3945A-1  
Had 140 amps.  
26 hrs. plating  
in working  
with 9 hrs. post  
plating.

Cont.

16 Easter Selection



acid bath.

March 9<sup>th</sup>Expt. # 116  
Remarks

Time	Sp. gr.	Temp.	Volt	Amper.	Total	Hrs.	Marking
10 AM	1202	130	8	75	150		Working normal
11	1210	130	8	75	225	1	# 3995 B-4
12	1213	130	8	75	300	2	Had 150 amper.
1 PM	1218	130	8	75	375	3	slow plating -
2	1224	130	8	75	450	4	than backslowing
3	"	"	"	"	525	5	fast plating for
4	"	"	"	"	600	6	8 3/4 hrs.
5	"	"	"	"	675	7	
6	"	"	"	"	750	8	
6:45	"	"	"	"	825	8 3/4	Out,

17 Earth Solution

March 9<sup>th</sup>Expt. # 117  
Remarks

Time	Sp. gr.	Temp.	Volt	Amper.	Total	Hrs.	Marking
10 AM	1210	130	8	75	150		Working normal
12	1213	130	8	75	10	1/2	# 5269 B-1
1 PM	1218	130	8	75	85	1 1/2	
2	1224	130	8	75	160	2 1/2	
3	"	130	8	75	235	3 1/2	
4	"	"	"	"	310	4 1/2	
5	"	"	"	"	385	5 1/2	
6	"	"	"	"	460	6 1/2	
7	"	"	"	"	535	7 1/2	
8	"	"	"	"	610	8 1/2	
9	"	"	"	"	685	9 1/2	
10	"	"	"	"	760	10 1/2	
10:30	"	"	"	"	835	11	

18 Earth Solution

March 9<sup>th</sup>

Expt. # 118

Time	Sp. gr.	Temp	Wet	Wgt.	Total	Wt.	Wet	Wt.
9 PM 1225	130	8	20					
9:30	1225	130	8	50	40	1/2		
10:30	"	"	"	"	60	1 1/2		
11:30	"	"	"	"	110	2 1/2		
12:30	"	"	"	"	160	3 1/2		
1 AM	"	"	"	"	210	4 1/2		
2:30	"	"	"	"	260	5 1/2		
3:30	"	"	"	"	310	6 1/2		
4:30	"	"	"	"	360	7 1/2		
5:30	"	"	"	"	410	8 1/2		
6:30	"	"	"	"	460	9 1/2		
7:30	"	"	"	40	500	10 1/2		
8:30	"	"	"	40	540	11 1/2		
9:30	"	"	"	75	615	12 1/2		
10:30	"	"	"	"	690	13 1/2		
11:30	"	"	"	"	765	14 1/2		
12:30	"	"	"	"	840	15 1/2		

19<sup>th</sup> Easter  
Supplement

March 9

Expt. # 119

Time	Sp. gr.	Temp	Wet	Wt.	Total	Wt.	Wet	Wt.
9 PM 1225	130	8	20					
9:30	"	"	"	50	10	1/2		
10:30	"	"	"	"	60	1 1/2		
11:30	"	"	"	"	110	2 1/2		
12:30	"	"	"	"	160	3 1/2		
1 AM	"	"	"	"	210	4 1/2		
2:30	"	"	"	"	260	5 1/2		
3:30	"	"	"	"	310	6 1/2		
4:30	"	"	"	"	360	7 1/2		
5:30	"	"	"	"	410	8 1/2		
6:30	"	"	"	"	460	9 1/2		
7:30	"	"	"	"	510	10 1/2		
8:30	"	"	"	"	560	11 1/2		
9:30	"	"	"	"	610	12 1/2		
10:30	"	"	"	"	665	13 1/2		
11:30	"	"	"	"	760	15 1/2		

2<sup>nd</sup> Easter  
Supplement

A

Q

March 10, 21. Exper. # 120

Time	Sp	Temp	Heart	Temp	Remarks
230					Working Mould.
330	1228	130	9	75 250	Backed up with
430	1255	"	"	75 325	175 Amps slow
530	1255	"	"	75 400	then transfer to
630	"	"	"	75 475	plating to 797 Amp
730	"	"	"	75 550	
830	"	"	"	75 625	#7747 B1
930	"	"	"	75 700	Working Mould.
1030	"	"	"	75 775	
1100	"	"	"	37 802	Out

21st Easter

March 11, 21

Expt. # 121

date	fig.	Temp.	Wet	dry	Wind	Remarks
1	125	134	8	65	100	Working Model
2	"	"	"	65	185	# 5249 H1
3	"	"	"	65	230	
4	"	"	"	65	245	Had 100amps
5	"	"	"	55	360	slow plate line
6	"	"	"	55	415	
7	"	"	"	55	470	
8	"	"	"	55	525	
9	"	"	"	55	580	
10	"	"	"	70	650	
11	"	"	"	75	725	
12	"	"	"	75	800	

22nd Easter

Mar. 11, 21:

Expt. #12

Time	Sp. g.	Temp.	Wet	dry	Total	Wt.	Remarks
11	125	134	8	50	130		Marking mould
12	"	"	"	50	180	1	#7049 & 1
1	"	"	"	50	230	2	
2	"	"	"	50	280	3	Had 130 amper
3	"	"	"	50	320	4	slow plate
4	"	"	"	50	380	5	
5	"	"	"	50	430	6	
6	"	"	"	50	480	7	
7	"	"	"	50	530	8	
8	"	"	"	70	580	9	
9	"	"	"	75	650	10	
10	"	"	"	75	725	11	
11	"	"	"	75	800	12	

23rd Easter  
Section

Mar. 11, 21:

Expt. #23

Time	Sp. g.	Temp.	Wet	dry	Total	Wt.	Remarks
11	125	130	9	75	200		Marking mould
12	"	"	"	75	275	1	#773 & 2
1	"	"	"	75	350	2	
2	"	"	"	75	425	3	Had 200 amper
3	"	"	"	75	500	4	slow plate
4	"	"	"	75	575	5	then backed
5	"	"	"	75	650	6	up fast plate
6	"	"	"	75	725	7	to 800 amper
7	"	"	"	40	765	7 1/2	total
							Out

24th Easter  
Section

Mar. 11, 21

Expt. # 12

March 12, 21

Expt. # 125

Time	Temp	Volts	Amps	Total	Wts.	Remarks
11:15	130	9	75	235		Revisited
12			75	310	1	Master female
1			75	385	2	#7749 B
2			75	460	3	Had 235 Amps
3			75	535	4	slow plate to
4			75	610	5	locked up to
5			75	685	6	797 total Amp
6			75	760	7	Out
6:30			37	79.7	7 1/2	

25th Easter  
Selection

Time	Temp	Volts	Amps	Total	Wts.	Remarks
12:24	132	10	65	65		Marking Mole
"	"	"	60	125	1	#773 & C1
"	"	"	60	185	2	
12:24	130	8	60	245	3	Had 65 Amps
12:26	"	"	75	320	4	slow plate to
12:30	"	"	75	395	5	then back to
12:29	"	8 1/2	75	470	6	to 807 pit
12:30	"	9	75	545	7	plate.
12:32	"	10	75	620	8	
12:29	"	10 1/2	75	695	9	
"	"	"	75	770	10	
"	"	"	37	807	11	Out

26th Easter  
Selection

March 12, 21 Eyper 126

Time	Spgr	Temp	Vat	Wt	Vol	Hr	Remarks
6 PM	1224	132	10	60	225		Working on old
7	"	"	"	60	285	1	#39 #15 #1
8	"	"	"	60	345	2	
9	1222	130	8	60	405	3	Had 225 Amps
10	1226	"	"	60	465	4	slow plating
11	1230	"	"	60	525	5	then backed up
12	1229	"	8 1/2	60	585	6	8.25 Amps
1	1230	"	9	60	645	7	
2	1232	"	10	60	705	8	
3	1239	"	10 1/2	60	765	9	
4				60	825	10	Out

2<sup>nd</sup> Eastern  
Selection

March 12

Effer #127

Time	Spgr	Temp	Vat	Wt	Vol	Total	Hr	Working working
12:45	1230	135	9	80	90			worked.
1:15	1232	132	10	80	170	1		#7734 C-2
1:45	1230	130	"	70	250	2		Had 90 amps
2:15	"	"	"	65	320	3		slow plating
2:45	"	"	"	65	385	4		then backed up
3:15	"	"	"	65	450	5		with 690 far
3:45	"	"	"	60	510	6		plating
4:15	"	"	"	60	570	7		
4:45	"	"	"	60	630	8		
5:15	"	"	"	60	690	9		
5:45	"	"	"	60	750	10		
6:15	"	"	"	30	780	10 1/2		Out

2<sup>nd</sup> Eastern  
Selection

March 12

Experi. # 128

March 14<sup>th</sup>

Residual 13 hrs.

Experi. # 129

Time	Sp. gr.	Temp.	Wt.	Comp.	Total No.	Hrs.	Remarks
4:45 AM	1232	135	9	75	175	1	Making working model
5:45	1232	133	10	75	250	1	# 4336C-1
6:45	1226	130	"	60	325	2	Had 175amps
7:45	-	-	-	60	385	3	slow plating
8:45	1235	132	10	60	445	4	Backed up
9:45	1225	130	"	60	505	5	with 625
10:45				75	565	6	plating
11:45				75	630	7	
12:45				75	715	8	
2:45				75	790	9	Out

29th mould

Time	Sp. gr.	Temp.	Wt.	Comp.	Total No.	Hrs.	Remarks
2:00	1223	130	7	75	110	1	Making
1:00	1230	"	7 1/2	75	185	1	Working Surfaces
2:00	1235	"	7	75	260	2	Had 110 amps
3:00	"	"	"	75	335	3	slow plating
4:00	1233	"	"	75	410	4	Then backed
5:00	"	"	"	75	485	5	up with 700
6:00	"	"	"	75	560	6	fast plating
7:00	"	"	"	75	635	7	# 4336 B-1
8:00	"	"	"	75	710	8	
9:00	"	"	"	75	785	9	
9:30				860			Out

30th mould

Two acid 13 hrs.  
March 14<sup>th</sup>

Expt. # 13

Time	Exp.	Days	Volt	Days	Total Hrs.	Remarks.
12	1230	130	7	75	300	Marking
1 PM	1230	"	7½	75	375	1. Marking penne
2	1230	"	7	75	450	2. Had 300 avg.
3	"	"	7	75	525	3. slow plating.
4	1233	"	"	75	600	4. Then looked up
5	"	"	"	75	675	5. with 500 avg.
6	"	"	"	75	750	6. fast plating
6:30	1			825		# 7747-A

Cut

31<sup>st</sup> mould

Two acid 13 hrs.  
March 15<sup>th</sup>

Expt. # 131

Time	Exp.	Days	Volt	Days	Total Hrs.	Remarks.
12:15	1230	130	7½	75	100	Marking penne
1:15	1232	"	"	75	175	1. would
2:15	1234	"	"	75	250	2. # 7747B-1
3:15	1232	"	"	75	325	3. Had 100 avg.
4:15	1230	"	"	75	400	4. slow plating
5:15	"	"	"	75	475	5. Then 700 avg.
6:15	"	"	"	75	550	6. fast plating
7:15	"	"	"	75	625	7
8:15	"	"	"	75	700	8
9:15	"	"	"	75	775	9
10:15	"	"	"	75	850	10. Cut

32<sup>nd</sup> mould.



no acid for 5 hrs.

March 15<sup>th</sup>

Exp. # 13

Time	Exp.	Temp.	Volt	Amp.	Total	Wt.	Remarks
10:30 AM	122	130	7.5	195	120	1	Working with
11:30	123	"	"	75	195	1	smoothed
12:30	1234	"	"	75	270	2	# 6250 F-1
1:30	1232	"	"	75	345	3	Had 120 amp
2:30	1230	"	"	75	420	4	plating
3:30	"	"	"	75	495	5	Then 650 ft
4:30	"	"	"	75	570	6	plating
5:30	"	"	"	75	645	7	
6:30	"	"	"	75	720	8	
7:30	"	"	"	75	795	9	
8:15	"	"	"	54	849	9 3/4	Out

33<sup>rd</sup> mould

March 16, 21.

Exp. # 133

Time	Exp.	Temp.	Volt	Amp.	Total	Wt.	Remarks
12:30	1225	132	8	65	65	1	Working mould
				65	65	1	reg xi plate + 1 hr
				"	130	2	at low amps
				"	195	3	backed up with
				"	260	4	787
				"	325	5	# 6391 B1 mould
				"	390	6	
				"	455	7	
				"	520	8	
				"	585	9	
				"	650	10	
				75	725	11	
				75	790	12	Out

34<sup>th</sup> mould

March 16, 21

Expt #134

Time	Exp. No.	Temp.	Vol. Amp.	Vol. (Hrs.)	Remarks
10:30	1231	130	75	5	Working mould
11:30	"	"	75	80	#4002 F3
12:30	"	"	75	155	Flash copper reg.
1:30	"	"	75	230	and back up
2:30	"	"	75	305	792 Amps put
3:30	"	"	75	380	plating.
4:30	"	"	75	455	
5:30	"	"	75	535	
6:30	"	"	75	610	
7:30	"	"	75	685	
8:30	"	"	75	760	
9:00	"	"	37	771	10% Cut

35th mould.

March 16, 21

Expt #135

Time	Exp. No.	Temp.	Vol. Amp.	Vol. (Hrs.)	Remarks
10:30	1230	130	75	5	Working mould
11:30	"	"	75	80	#4002 B1
12:30	"	"	75	155	Flash copper reg.
1:30	"	"	75	230	bath then bath
2:30	"	"	75	305	up fast plating
3:30	"	"	75	380	with 792 Amps.
4:30	"	"	75	455	
5:30	"	"	75	530	
6:30	"	"	75	605	
7:30	"	"	75	680	
8:30	"	"	75	755	cut
9:00	"	"	75	830	

36th mould.

March 16<sup>th</sup>

Expn. # 136

March 16<sup>th</sup>

Expn. # 137

Time	Expn.	Temp.	Wet	Wet	Total	Hum.
8:30 AM	135	130	7½			
9:00	"	"	"	10	10	½
10				50	60	1½
11				50	110	2½
12				50	160	3½
1 AM				50	210	4½
2				50	260	5½
3				50	310	6½
4				50	360	7½
5				50	410	8½
6				50	460	9½
7				50	510	10½
8				50	560	11½
8:30				25	585	12
9:30				75	660	
10:30				75	735	
11:30				75	810	

Remarks.  
Specimen for  
Kesseler, slow  
plating in  
nickel, then  
backed up with  
copper fast  
plating.

C.T.

37<sup>th</sup> mould

Time	Expn.	Temp.	Wet	Wet	Total	Hum.
8:15 AM	130	130	7½			
8:45				50	55	1
9:15				50	110	2
9:45				50	160	3
10:15				50	210	4
10:45				50	260	5
11:15				50	310	6
11:45				50	360	7
12:15				50	410	8
12:45				50	460	9
1:15				50	510	10
1:45				75	585	
2:15				75	660	
2:45				75	735	
3:15				75	810	

Remarks.  
Backlog  
winding around  
# 38 & C-1  
Had copper  
flash, then  
backed up  
with fast  
plating.

Out

38<sup>th</sup> mould

March 17, 21.					Expt # 138
Time	Amps	Volts	Amps	Total hrs	Remarks
11:40	1230	138	9	75 5	Making Mould
12				75 80 1	# 4386 G2
1				75 155 2	flash copper sh
2				75 290 3	stamp in reg. bot
3				75 305 4	then back up
4				75 380 5	with 75 amp
5				75 465 6	fast plating
6				75 540 7	
7				75 605 8	
8				75 680 9	
9				75 765 10	Out.

39<sup>th</sup> mould

March 17, 21.					Expt # 139
Time	Amps	Volts	Amps	Total hrs	Remarks
12:30	130		9	75 5	Making Mould
				75 80 1	# 6250 F1
				75 155 2	flash copper sh
				250 3	at 5 amp in reg.
				305 4	bathe, then backed
				380 5	up with 750 amps
				465 6	fast plating
				530 7	
				605 8	
				680 9	
				765 10	Out

40<sup>th</sup> mould

March 18, 21

Expt # 140

March 18, 21

Expt # 141

Time	Sp. Dr.	Imp.	Volt	Amps	Total	Time
9:30	12.35	130	7.5	50	5	
10:30				50	55	1
11:30				50	105	2
12:30				50	155	3
1:30				50	205	4
2:30				50	255	5
3:30				50	305	6
4:30				50	355	7
5:30				50	405	8
6:30				50	455	9
7:30				50	505	10
8:30						11
9:30						12

Remarks:  
Working Female  
# 77467 H  
1 hr at stamp, slow  
copper plate, etc  
back up with 7  
amps first plating

4<sup>th</sup> at Monday

Time	Sp. Dr.	Imp.	Volt	Amps	Total	Time
0	12.35	130	7.5	50	175	
1				50	225	1
2				50	275	2
3				50	325	3
4				50	375	4
5				50	425	5
6				50	475	6
7				50	525	7
8				50	575	8
9				50	625	9
10				50	675	10
11					750	11
12				37	787	12

Remarks:  
Working Female  
# 6252 F4  
Had 175 amperes  
slow plating,  
then back up to  
total 787 amperes  
plating.

Out -

4<sup>2nd</sup> at Monday

Main 1866

Expen. # 14

Time	App	Temp	Wet	Amp	Total	How
4:30	"	130	9	5	5	
5:30	"	"	"	75	80	1
6:30	"	"	"	75	155	2
7:30	"	"	"	75	230	3
8:30	"	"	"	75	305	4
9:15	"	"	"	50	355	4 1/2
10:00				75	425	
2 PM				75	510	
3 PM				75	585	
4 PM				75	660	
5 PM				75	735	
6				75	810	
7						

4319

Main 1866

Expen. # 143

Time	App	Temp	Wet	Amp	Total	How	Notes
11:30	"	130	9	5	5		
12:30	"	"	"	75	80	1	# 400 2 A-3
1:30	"	"	"	75	155	2	Out at 9:15 PM
2:30	"	"	"	75	230	3	
3:30	"	"	"	75	305	4	
4:30	"	"	"	50	355	4 1/2	
5:30	"	1225	130	9	75	425	
6:30	"	"	"	75	500		
7:30	"	"	"	75	575		
8:30	"	"	"	75	650		
9:30	"	"	"	75	725		
10:30	"	"	"	75	800		

21419

March 18th Exp. # 144

Time	Sp. gr.	Temp.	Volt	Ang.	Dist	Hum.	Remarks
10:15 P.M.	1.330	130	9		5		Mapping work
11:15				50	55	1	model
12:15				50	105	2	#3995 A1
1:15				50	155	3	
2:15				50	205	4	
3:15				50	255	5	
4:15				50	305	6	
5:15				50	355	7	
6:15				50	405	8	
7:15				50	455	9	
8:15				50	505	10	
9:30				75	520	11	
10:30				75	595	12	
11:30				75	670	13	
				75	745	14	

2456

March 18th Exp. # 145

Time	Sp. gr.	Temp.	Volt	Ang.	Dist	Hum.	Remarks
10:15 P.M.	1.330	130	9		60		making work
11:15				50	110	1	fence
12:15				50	160	2	#4002 B
1:15				50	210	3	Hard 4 hrs. in
2:15				50	260	4	slow copper
3:15				50	310	5	
4:15				50	360	6	
5:15				50	410	7	
6:15				50	460	8	
7:15				50	510	9	
8:15				50	560	10	
9:30				75	575	11	
10:30				75	650	12	
11:30				75	725	13	
				3762			cut

246

Mar. 21<sup>st</sup>

Expt. #1

Mar. 22<sup>nd</sup>

Expt. #147

Time Hrs.	Sq. ft.	Temp	Volts	Amperes	Total Hrs.	Remarks
11	125	130	8	5		#4336B-1
12	"	"	"	75	80	1. Working working
1 PM	"	"	"	75	55	2. would
2	"	"	"	75	320	3
3	"	"	"	75	305	4
4	"	"	"	75	380	5
5	"	"	"	75	455	6
6	"	"	"	75	530	7
7	"	"	"	75	605	8
8	"	"	"	75	680	9
9	"	"	"	75	755	10. Out

475

Time Hrs.	Sq. ft.	Temp	Volts	Amperes	Total Hrs.	Remarks
11	125	135	6			#7734C4
12	"	"	"	50	335	1. working
1 PM	"	"	"	50	385	2. working normal
2	"	"	"	50	435	3. Had 255
3	"	"	"	50	485	4. approx. slow
4	"	"	"	50	535	5. plating
5	"	"	"	50	585	6
6	"	"	"	50	635	7
7	"	"	"	50	685	8
8	"	"	"	50	735	9
9	"	"	"	50	785	10
10	"	"	"	37	822	" Out

268 15



Mar. 21/27

Eggs # 148

Mar. 22

Eggs # 149

Time	Temp	Volts	Days	Total Hrs	Remarks	Time	Temp	Volts	Days	Total Hrs	Remarks
9:45	1227	130	6	285	# 3813 C-	1240	130	6 1/2	140	# 2389B3	
10:45		50	335	1	making	1235	"	"	75	215	1 making working
11:45		50	385	2	working 1 hour	1230	"	"	75	290	2 would
12:45		50	435	3	Had 285	"	"	"	75	365	3 Had 140 days
1:45		50	485	4	slow plating	"	"	"	75	440	4 slow plate
2:45		50	535	5		"	"	"	75	515	5
3:45		50	585	6		"	"	"	75	590	6
4:45		50	635	7		"	"	"	75	665	7
5:45		50	685	8		"	"	"	75	740	8
6:45		50	735	9		"	"	"	75	785	9
7:45		50	785	10							
8:30		50	822	11	Out.						

499

504

Mar. 22

Expt # 150

Time AM	Sp	g	Temp	Wet	Aug	Total	Ho	Remarks
11	1235	"	"	25	285	140	1	# 6252C-4 making working
12	1230	"	"	25	290	2	2	model Had
1	"	"	"	25	365	3	3	140 Aug. slow
2	"	"	"	25	440	4	4	plate
3	"	"	"	25	515	5	5	
4	"	"	"	25	590	6	6	
5	"	"	"	25	665	7	7	
6	"	"	"	25	740	8	8	
7	"	"	"	25	795	9	9	Out

5120

Mar. 22

Expt # 151

Time AM	Sp	g	Temp	Wet	Aug	Total	Ho	Remarks
11	1230	"	"	40	250	1	1	# 6250 F1 making
12	"	"	"	40	320	2	2	working model
1	"	"	"	40	360	3	3	Had 240 amps
2	"	"	"	40	400	4	4	slow plate
3	"	"	"	40	440	5	5	
4	"	"	"	40	480	6	6	
5	"	"	"	40	520	7	7	
6	"	"	"	40	560	8	8	
7	"	"	"	40	600	9	9	
8	"	"	"	40	640	10	10	
9	"	"	"	40	680	11	11	
10	"	"	"	40	720	12	12	
11	"	"	"	40	760	13	13	
12	"	"	"	40	800	14	14	Out

5220

Mar. 22

Exp. # 152

Mar 23

Exp. # 153

Time	Sp.	Temp	Alt	Wind	Remarks
7:30 AM	130	40	240	1	# 7734 AV
8:30	"	"	40	250	making writing
9:30	"	"	40	320	2 - would, 1st
10:30	"	"	40	360	2 240 wings, slow
11:30	"	"	"	400	4 plate
12:30	"	"	"	440	5
1:30	"	"	"	480	6
2:30	"	"	"	520	7
3:30	"	"	"	560	8
4:30	"	"	"	600	9
5:30	"	"	"	640	10
6:30	"	"	"	680	11
7:30	"	"	"	720	12
8:30	"	"	"	760	13
9:30	"	"	"	800	14

Remarks,  
# 7734 AV  
making writing  
would, 1st  
240 wings, slow  
plate

Out

53

Time	Sp.	Temp	Alt	Wind	Remarks
7:30 AM	130	40	240	1	# 7734 AV
8:30	"	"	40	250	making writing
9:30	"	"	40	320	2 - would, 1st
10:30	"	"	40	360	2 240 wings, slow
11:30	"	"	"	400	4 plate
12:30	"	"	"	440	5
1:30	"	"	"	480	6
2:30	"	"	"	520	7
3:30	"	"	"	560	8
4:30	"	"	"	600	9
5:30	"	"	"	640	10
6:30	"	"	"	680	11
7:30	"	"	"	720	12
8:30	"	"	"	760	13
9:30	"	"	"	800	14

Remarks,  
# 7734 AV  
making writing  
would  
Hwy/foam,  
slow plate

Out

54

Mar 23

Exp. # 15

Mar. 23 -

Exp. # 155  
Remarks.

Time	Sp. #	Temp	Wet Temp	Int	Kno	Remarks	Time	Sp. #	Temp	Wet Temp	Int	Kno	# 7794B1	
10:30	240	130	9		180	# 7735A1	10:30	130	130	8		270	1	
11:30	1230	"	"	75	255	1	11:30					40	310	1
12:30	"	"	"	75	330	2	12:30					40	350	2
1:30	"	"	"	75	405	3	1:30					40	380	3
2:30	"	"	"	75	480	4	2:30					40	430	4
3:30	"	"	"	75	555	5	3:30					40	490	5
4:30	"	"	"	75	630	6	4:30					40	540	6
5:30	"	"	"	75	705	7	5:30					40	580	7
6:30	"	"	"	75	780	8	6:30					40	590	8
7:00	"	"	"	38	815	8 1/2	7:00					40	630	9
						Out	7:30					40	670	10
							8:00					40	710	11
							8:30					40	750	12
							9:00					40	790	13
							9:30					40	830	14
													Out,	

55 1/4

58 1/4

Out,

Mar 23

Exp. # 150

Mar 24

Exp. # 157

Remarks										Remarks									
Time	Sp	Sp	Wet	Wet	Total	Wet	#	625	A1	Time	Sp	Sp	Wet	Wet	Total	Wet	#	625	A1
7:30	1230	130	8		240					7:30	1240	127	5		100				
8:30					40 250	1													
9:30					40 320	2													
10:30					40 360	3													
11:30					40 400	4													
12:30					40 440	5													
1:30					40 480	6													
2:30					40 520	7													
3:30					40 560	8													
4:30					40 600	9													
5:30					40 640	10													
6:30					40 680	11													
7:30					40 720	12													
8:30					40 760	13													
9:30					40 800	14													

Remarks

# 625 A1

Working

Working 200

Had 24000

slow plate

Out

57.26

Remarks

# 625 A1

Working

Working 100

Had 10000

slow plate

ggh

~~March 25, 21~~ ~~Exp # 15~~ ~~Exp # 15~~

Time	Temp.	Volts	Amps	Total	Remarks
2:30 PM	138	132	8	220	Master World
3:30	122.0	130	"	75	# E - 540 wh
4:30	"	"	"	75	has had preb
5:30	"	"	"	75	then back up to
6:30	122.2	"	"	75	total of 220 Amp
7:30	122.5	"	"	75	in slow plat
8:30	"	"	"	75	baths. Checked
9:30	"	"	"	75	in regular po
10:30	"	"	"	75	not plating
11:30	122.2	"	"	75	for 15 hours
12:30	122.1	"	"	75	making a tota
1:30	122.2	"	"	75	of 1340 Amps
2:30	122.0	"	"	75	
3:30	"	"	"	75	1000 Acid each h
4:30	"	"	"	75	500 cc H <sub>2</sub> O "
5:30	"	"	"	75	4 hours

Set revolve till disc.  
was same temp. as sol.  
Wet covered in preliminary  
baths then back up in  
regular baths to total of 220 lbs.  
put in for plating both then  
plate 75 hours for 15 hours  
After this disc started to warp  
500 small pieces appeared  
" 12" trace " 1/2 all over

at 5:30 took out the  
and it started to  
increased with  
1000 cc. p. h. f.  
11:30 - At 2  
disc was very  
rough - large  
tree punctures  
recovered.

Mar. 29

Exp # 159

Remarks.

Time	Temp.	Volts	Amps	Total	Remarks
3:00	122.5	130	8	220	# 7747 A3
3:30	"	"	"	75	cracking, working
4:00	"	"	"	75	mercury bath
4:30	"	"	"	75	225 lbs. slow
5:00	"	"	"	75	plate. When
5:30	"	"	"	75	taken out
6:00	"	"	"	75	slow plate. Made
6:30	"	"	"	75	had rough center
7:00	"	"	"	75	also whole
7:30	"	"	"	75	surface showed
8:00	"	"	"	75	2 light roughness
8:30	"	"	"	75	159

59.5

Mar. 29

Expt. # 160

Time P.M.	S. g.	Temp.	Vol.	Aug.	Temp.	Hrs.	Remarks
12:30	4	"	"	8	210		# 7683 C-1
1:30	"	"	"	75	260	1	marking wood
2:30	"	"	"	75	360	2	unshed. Hays
3:30				75	435	3	210 Aug. slow
4:30				75	510	4	plates. W. W.
5:30				75	585	5	taken from
6:30	1234	130	8	50	630	6	slow plate
7:30				50	680	7	would show
8:30				50	730	8	roughness on
							muscle and
							163

60 hr

50  
50

100/100

[ITEM(S) FOUND IN BOOK]

C-21-192137

Expt # 77 Am backed  
Walter Archer

You better get a  
good female that  
has been pulled off  
because it has made  
working moulds  
enough & plate a little  
nickel over it in inequal  
bath say 8" to amp for  
six hours then put  
it in 75 amp bath  
& plate reg thick  
have it stripped &  
turned & test points  
take to see if any  
trouble arises

Σ



[ITEM(S) FOUND IN BOOK]

Expt # 51 <sup>52</sup>

12/27/20

Mr. Archer -

284.70 grams B.V. per liter  
27.71 c.c. H<sub>2</sub>SO<sub>4</sub> " "

therefore add 70g. B.V. +

106 c.c. H<sub>2</sub>SO<sub>4</sub> to 10 gallons

to make it same as Dec. 2, 1920

F. Healy Jr

Mr. Archer -

Expt # 53

Dec. 28, 1920

Analysis - 299.82 grams B.V. per liter  
29.84 c.c. H<sub>2</sub>SO<sub>4</sub> " "

∴ add 86 c.c. H<sub>2</sub>SO<sub>4</sub> to make the sol.

300 grams B.V. + 32 c.c. H<sub>2</sub>SO<sub>4</sub> per

liter - (10 gallons)

F. Healy Jr

[ITEM(S) FOUND IN BOOK]

Expt #54

Mr. Archer -

Dec. 29, 1920.

Analyses - 27.12 c.c.  $H_2SO_4$  per liter.  
270.89 grams B.V. " "

1. add 196 c.c.  $H_2SO_4$  +  
alts. 100g. B.V. to make  
10 gallons have 300 grams B.V. + 32 c.c.  $H_2SO_4$   
per liter.  
Note: + add the 196 c.c.  $H_2SO_4$  on any B.V.

Expt #55

Mr. Archer

Dec. 30, 1920.

Analyses - 23.160 c.c.  $H_2SO_4$  per liter.  
257.74 grams B.V. " "

Therefore add 3 lbs. 12 oz. B.V. +  
336 c.c.  $H_2SO_4$  to 10 gal.

Expt #55 to make 32 c.c.  $H_2SO_4$  per liter.  
Added half the quantity + 300 grams B.V. " "

250g B.V.  
250g B.V.  
250g B.V.

100g B.V.

[ITEM(S) FOUND IN BOOK]

Mr. Archer - 565.9412

Analysis: - 257.73 grams B.V. per liter  
246.86 c.c. H<sub>2</sub>SO<sub>4</sub>

Therefore add 246 c.c. H<sub>2</sub>SO<sub>4</sub> to  
1 lt. 90% B.V. to make  
to make 3 c.c. H<sub>2</sub>SO<sub>4</sub> 300 grams  
B.V. per liter

1.375 lb 2 lbs 50% B.V. } To dilute for 15 gallons  
1888.54 369 c.c. acid.

257.73  
172.7  
6  
42 1036.2  
906.2  
130  
3960

16  
100  
128  
32  
448 6174  
6  
368.4

[ITEM(S) FOUND IN BOOK]

Expt 58+59

M. Gieseler Jan. 3, 1921

Analysis: 24.50 c.c.  $H_2SO_4$  per liter  
29.522 gram B.V. " "

1. add 480 c.c.  $H_2SO_4$  T  
14.0g. B.V. to 20 gal.  
to make 300 grams T 30 c.c.  
per liter

Tablets of J.

did not add any B.V. or  $H_2O$  by  
want solution to taper down till it  
becomes poor plating

[ITEM(S) FOUND IN BOOK]

Expt # 60-61

4  
\$19.00

Analysis: 295.88 grams B.V. for liter  
24.85 c.c. H<sub>2</sub>SO<sub>4</sub> " "

Check List

Expt 13.00  
F. H. H. 140

Expt # 60 + 61 Jan. 4, 20.

297.19 B.V. } gravity  
24.86 c.c. H<sub>2</sub>SO<sub>4</sub> } 12.10

add 379 c.c. acid  
1/2 lit. B.V.

for 20 gal.  
gravity 12.10

Expt 60 + 61

Did not add any BL or H<sub>2</sub>SO<sub>4</sub>  
Hant solution content to taper down  
till it shows poor plating

60

45 amps short

[ITEM(S) FOUND IN BOOK]

Mr. Archer June 6, 1921

Analysis = 282.73 grams B.V. per liter  
 23.48 c.c. H<sub>2</sub>SO<sub>4</sub> " "

#62-63 Eggs

1,209 @ 70°F  
 1,195 @ 120°F

F. Little Jr.

1/7/21

Analysis = 260.26 grams B.V. per liter  
 19.36 c.c. H<sub>2</sub>SO<sub>4</sub> " "

Grand 290 B.V. } F. Little Jr.  
 lost 24 H<sub>2</sub>SO<sub>4</sub>  
 add 297 H<sub>2</sub>SO<sub>4</sub>  
 " 484 g. B.V.

[ITEM(S) FOUND IN BOOK]

Expn #64

Mr. Archer -

June 8, 1921.

Analysis: - 263.00 grams B.V. per liter.  
16.75 c.c. H<sub>2</sub>SO<sub>4</sub> " "

J. Hettler Jr.

$$\begin{array}{r}
 24 \\
 76.75 \\
 \hline
 7.75 \\
 6.00 \\
 \hline
 435.00 \text{ grams} \\
 \text{c.c.}
 \end{array}
 \quad
 \begin{array}{r}
 220 \\
 270 \\
 \hline
 490 \\
 13.59 \\
 \hline
 261 \times 16 \\
 413 \\
 16 \\
 \hline
 1566 \\
 261 \\
 \hline
 452 \overline{) 4176} \\
 4077 \\
 \hline
 990
 \end{array}$$

add 3 lb 9 oz B.V.  
435 c.c. H<sub>2</sub>SO<sub>4</sub>

[ITEM(S) FOUND IN BOOK]

Expt # 65+66. Jan. 8, 20.  
Cand. = 86.67 grams B.V.  
22.24 c.c. H<sub>2</sub>SO<sub>4</sub>  
add 8.03 B.V. T.  
7.20 c.c. H<sub>2</sub>SO<sub>4</sub>



[ITEM(S) FOUND IN BOOK]

Mr. Archer

1/10/21

24.56 B.V.

18.40  $H_2SO_4$

Check before  
correcting for  
#67 Expt

add  $2\frac{1}{2}$  gallons water

T 524 c.c.  $H_2SO_4$

T correction 23 acid

T 280 B.V.

+ 148 S.C. more of acid for

25 acid

F. L. Litley Jr.

Expt #67

Mr. Archer 1/10/21

244.56 grams B.V.T

21.14 c.c.  $H_2SO_4$  per  
liter

F. L. Litley Jr.

[ITEM(S) FOUND IN BOOK]

[con Jan 14]

2 1/2 galbn water

524 cc  $H_2SO_4$

23" <sup>cc</sup>  
Per liter

148 cc  $H_2SO_4$  more to = 25 cc  
H<sub>2</sub>O  
Per liter

Jan 11, 1921

M. Archer:-

analysis

162.85 grams B.V. T

14.55 c.c.  $H_2SO_4$  per

liter

add 18 lbs BV

" 497 cc  $H_2SO_4$

added. OK. 12/13/21

[ITEM(S) FOUND IN BOOK]

1/13/-1  
294.84 grams B.V. per liter  
20.05 c.c.  $H_2SO_4$  " "

add 200 c.c.  $H_2SO_4$   
to make 2500  $H_2SO_4$  per liter Expt. #71

Expt. #72

1/14/-1

23.34 c.c.  $H_2SO_4$   
293.41 grams B.V.  
add 80 c.c.  $H_2SO_4$

F. H. Little

Temp.	Grams per liter	
0	12.5	14.3
10	14.2	17.4
20	17.2	20.7
25	18.5	22.7
30	20	25
40	22.5	28.5
50	25	33.3
60	28.5	40
80	35.5	55
100	43	75.4
120	44	78.6
140	44.5	80.2
160	44	78.6
180	43	75.4

Special's Density of saturated aq. of  $H_2SO_4$  5/20 in  $H_2O$  at 60°  
100 gms. sat. solution in  $H_2O$  contains 20.32 gms.  $H_2SO_4$  at 30°  
about 2%  $H_2O$   
Cry. Sol. Solubility

[ITEM(S) FOUND IN BOOK]

1/15/21

Anal = 19.50 c.c.  $H_2SO_4$   
265.70 grams B.V.

Walter the new steam coil is in ~~fit~~.

Add 2 lbs 4 oz B.V.  
264 c.c.  $H_2SO_4$ .

285 BV  
25 cc  $H_2SO_4$

Epper #73

Epper #74

1/17/21

242.27 grams B.V.  
18.26 gr  $H_2SO_4$ .

add 3 lbs 4 oz.

296 c.c. acid

= figure 11: gallons.

[ITEM(S) FOUND IN BOOK]

1/18/21.

287.43 grams B.V. per liter

24.44 c.c. H<sub>2</sub>SO<sub>4</sub> " "

Expt # 75

January 19, 1921.

29.22 c.c. H<sub>2</sub>SO<sub>4</sub> per liter

278.84 grams B.V. " "

G. Ketch Jr.

add ill. B.V.

Expt # 76

[ITEM(S) FOUND IN BOOK]

1/20/21

278.84 grams B.V. *facilita*

22.79 c.c. H<sub>2</sub>SO<sub>4</sub> " " "

add 110g B.V.

97 c.c. H<sub>2</sub>SO<sub>4</sub>

11 yellowish-brown *Facilita* J.

Expt #77

Expt #78.

1/21/21

23.34 c.c. H<sub>2</sub>SO<sub>4</sub> *facilita*

295.13 grams B.V. " " "

add 66 c.c. Acid

225 B.V.

80° @ 1160

23 H<sub>2</sub>SO<sub>4</sub>

[ITEM(S) FOUND IN BOOK]

Mr Archer  
Copper Solution

Jan 23, 21

H<sub>2</sub> SO<sub>4</sub> per Liter 14.11 cc or 25.89 grams

Cu SO<sub>4</sub> per Liter 289.29 grams

Rodford

1/24/21

289.50 grams B.V. per liter

12.44 c.c. H<sub>2</sub> SO<sub>4</sub>

add 450 c.c. H<sub>2</sub> SO<sub>4</sub>

Expn #79

[ITEM(S) FOUND IN BOOK]

1/26/21

279.89 grams B.V. for distn  
18.67 c.c.  $H_2SO_4$  " "

add 253 c.c.  $H_2SO_4$  +  
1203 B.V.

F. Kettley

1/28/21

297.76 B.V. Exper # 80  
2224  $H_2SO_4$

add 2 liters water  
to 116 c.c.  $H_2SO_4$

~~James H. Kettley~~



[ITEM(S) FOUND IN BOOK]

1/31/71

~~Expt #80~~

18.12 c.c.  $H_2SO_4$  per liter

304.94 grams B.V. " "

add 294.00  $H_2SO_4$  + 2 liter  $H_2O$

2/1/71

Expt #81

17.03 c.c.  $H_2SO_4$  per liter

299.41 grams B.V. " "

add 336 c.c.  $H_2SO_4$  +

2 liter water

F. M. Little, Jr.



[ITEM(S) FOUND IN BOOK]

2/3/21 4/797  
26.50 H-804  
273.49 B.V.  
add 1 lb. B.V.  
Exp #83.

[ITEM(S) FOUND IN BOOK]

2/4/71

38.58 c.c. H<sub>2</sub>SO<sub>4</sub>

263.02 grams B.V.

add 21.7 liter H<sub>2</sub>O

15.5 lbs. B.V.

Expen #85

[ITEM(S) FOUND IN BOOK]

2/7/41-  
 304.37 grams B.V. per liter  
 24.58 c.c. H<sub>2</sub>SO<sub>4</sub> " "  
 F. Settle Jr.  
 Experiment #86

ENT-1000-2-40

MEMORANDUM  
 THOMAS A. EDISON INDUSTRIES

[Feb 9, 1941]

MR.

Mr. Archer  
 Analysis of coffee sol.

DATE

AVOID VERBAL MESSAGES  
 CONFIRM VERBAL UNDERSTANDINGS

# 204 per liter  
 Cu SO<sub>4</sub> " "

12.35 cc  
 2.95 grams

2.6 cc H<sub>2</sub>SO<sub>4</sub>

Redford

12 gr. Cu.

Redf. 347 cc H<sub>2</sub>SO<sub>4</sub> to 12 gal solution  
 will make it 2.6 cc per liter

Exp #88

3.5.48

[ITEM(S) FOUND IN BOOK]

2/10/21

21.01 c.c. H<sub>2</sub>SO<sub>4</sub> for liter  
298.86 grams B.V. " "

add 1945 c.c. water T  
210 c.c. H<sub>2</sub>SO<sub>4</sub>

F. Hettler Jr.  
f

Master female

Archer 2/14/21

290.04 grams B.V. for liter  
22.65 c.c. H<sub>2</sub>SO<sub>4</sub> " "

add 700 c.c. water  
T 112 c.c. H<sub>2</sub>SO<sub>4</sub>

F. Hettler Jr.

Cypher #89

[ITEM(S) FOUND IN BOOK]

2/11/21

282.87 grams B.V. per liter

22.79 c.c. H<sub>2</sub>SO<sub>4</sub> " " "

add 88 c.c. H<sub>2</sub>SO<sub>4</sub>

F. Kettle Jr.

2/11/21

23.48 c.c. H<sub>2</sub>SO<sub>4</sub> per liter

278.46 grams B.V. " " "

add 707 B.V. 59

" 43 c.c. H<sub>2</sub>SO<sub>4</sub> 0.9

559.513 F. Kettle Jr.

012 0.46  
61 0.59

Exp #92

2/11/21

511 0.96  
0.234 0.96

0.234 0.96  
0.234 0.96

[ITEM(S) FOUND IN BOOK]

EST-150M-9-25

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

Feb 15, 1921

MR.

*Mr. Archer*

DATE

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*acid constant 25.17 cc per liter*  
*on 804 25.12 grams per liter*

*285. 38. 304. 3.785 liters per gallon*  
*277. 16 gallon*  
*8 11 37.85 8 gms*  
*306.800*

*Spec # 704*

EST-150M-9-25

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE 2-15-21

MR.

*Archer*

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*Copper Solution*  
*acid 2.145*  
*on 804 27.85.34*

*Add 102 cc. H<sub>2</sub>SO<sub>4</sub>*  
*9 oz. on 804*

*Redford*

*Spec # 64*



[ITEM(S) FOUND IN BOOK]

ENT-150M-1-50

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

C Feb 17, 1921

MR. *Archer*  
*Chas. L. ...*

DATE

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*H-2 80y 1.1 liter 25.29 cc*  
*Can 80y " 245.84*

*add 21.00 H-2 80y*  
*" 1.0 oz Can 80y*

*McClure*

*Ept 25*

ENT-150M-1-50

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

C Feb 18, 1921

MR. \_\_\_\_\_

DATE

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*Reg. (Print) 27.20 Can 80y 324.94 g*  
*Special (Print) 29.26 x 1 Can 80y 300 g*

*Ept 26*

[ITEM(S) FOUND IN BOOK]

EST-1004-1-40

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

[FEB 21, 1921]

MR. *Archur*

DATE

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*H<sub>2</sub> SO<sub>4</sub> 26.04 cc per liter*

*296.74 grams per liter*

*2.60*

*2.60*

EST-1004-1-40

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

MR. *Archur*

FUNCTION

*Pu SO<sub>4</sub> 2.26.15 grams per liter 1.26*

*H<sub>2</sub> SO<sub>4</sub> 2.2.68*

*Michael solution Archur 7.1 grams per liter*

*1.26*

*1.26*

*2.26.15*

*3.8 to gullen. Made 300 BV*

*27 cc H<sub>2</sub> SO<sub>4</sub> in liter*

*1.26*

[ITEM(S) FOUND IN BOOK]

887-10801-2-80

MEMORANDUM  
THOMAS A. EDSON INDUSTRIES

DATE \_\_\_\_\_

MR. Archur

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

Copper solution  $H_2SO_4$  — 25.64 cc  
Cu  $SO_4$  — 294.25

Nickel sol. Nitric acid 5.1 cc per liter  
Add to copper solution 100 cc water  
+ 67 cc  $H_2SO_4$

Add to Nickel solution 100 cc water  
acid Rectford.

887-10801-2-80

MEMORANDUM  
THOMAS A. EDSON INDUSTRIES

DATE \_\_\_\_\_

MR. Archur

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

Copper solution

Cu  $SO_4$  — 305 grams per liter  
 $H_2SO_4$  — 26.48 cc per liter

Acid 3 gts water + 100 cc acid

Rectford.

[ITEM(S) FOUND IN BOOK]

887-128H-5-88

MEMORANDUM

THOMAS A. EDISON

DATE

MR.

AVOID VERBAL MESSAGES

CONFIRM VERBAL UNDERSTANDINGS

FURTHER

Per Slog 275 H1 grams per liter  
H2 Slog 22.44 cc per liter

546 grams coffee sufficient to make  
173 cc. sublimic acid

271 BV

27 Hm Slog

[ITEM(S) FOUND IN BOOK]

DET-100M-9-50

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE 3/1/21

NR.

Archur

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

Copper Solution

Cu SO<sub>4</sub> 29.7%  
H<sub>2</sub>SO<sub>4</sub> " " 26.78%

1 gal 1 1/4 liter water & 3 cc acid  
Rudford

DET-100M-9-50

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE 3/2/21

NR.

Archur  
Copper Analysis

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

Cu SO<sub>4</sub> - 286.59 grams / L  
H<sub>2</sub>SO<sub>4</sub> - 275.2 cc / L

Rudford

[ITEM(S) FOUND IN BOOK]

327-100M-9-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

MR.

*Archur*

*March 4, 21*

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*Quint 27.28*  
*On 804 283.06*

*Bedford*

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

*On 804 286.69 grams / 1 213.02*  
*On 804*  
*H2SO4 31.00 / 1*  
*6 1/2 liters water — 221.8 grams*  
*On 804*

*Bedford*

[ITEM(S) FOUND IN BOOK]

157-150M-2-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE Mar 9, 21

MR. \_\_\_\_\_

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

PURVISOR

H<sub>2</sub> SO<sub>4</sub> -- 28.58 cc per L  
Cu SO<sub>4</sub> 29.54 grams per L.

Redford

157-150M-2-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE 3/10/21

MR. \_\_\_\_\_

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

PURVISOR

Cu SO<sub>4</sub> per liter 240.79 grams.  
H<sub>2</sub> SO<sub>4</sub> per liter 28.34 cc

Redford.

[ITEM(S) FOUND IN BOOK]

887-1504-9-55

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE

March 11/21

MR.

Archer

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

Cu #1 Cu SO<sub>4</sub> per liter 335.10 grams  
H<sub>2</sub>SO<sub>4</sub> per liter ~~34.80 cc~~  
34.80 cc

Cu Reg. Cu SO<sub>4</sub> per liter 296.64 grams  
H<sub>2</sub>SO<sub>4</sub> per liter 29.58 cc

296 g AT 1200 327 AT 1230  
27 32



[ITEM(S) FOUND IN BOOK]

28Y-110M-1.2C

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE March 14/21

ME

**AVOID VERBAL MESSAGES**  
**CONFIRM VERBAL UNDERSTANDINGS**

**FUNCTION**

Cu SO<sub>4</sub> per liter 290.56 grams

H<sub>2</sub>SO<sub>4</sub> per liter 33.31 cc

Ridford

327

355

[illegible]

[ITEM(S) FOUND IN BOOK]

227-12004-5-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE 3-15-21

MR. Archib

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

no. 1	H <sub>2</sub> SO <sub>4</sub>	per liter	38.28 cc
	Cu SO <sub>4</sub>	" "	339.57 grams

Reg.	H <sub>2</sub> SO <sub>4</sub>	" "	35.74 cc
	Cu SO <sub>4</sub>	" "	339.57 grams

Redford.

227-12004-5-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE Mar 16 / 21

MR. Archib

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

no. 1	Cu SO <sub>4</sub>	per liter	334.53 grams
	H <sub>2</sub> SO <sub>4</sub>	" "	31.44 cc

Redford

[ITEM(S) FOUND IN BOOK]

14-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

DATE

5/17/21

AVOID VERBAL MESSAGES

CONFIRM VERBAL UNDERSTANDINGS

FUNCTION

Ha 804  
Cm 804

37.40 cc per liter  
335.10 grams per liter

Relford

[ITEM(S) FOUND IN BOOK]

35T-150M-3-80

THOMAS A. EDSON INDUSTRIES

MR.

Archer

DATE

3/18/21

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FORWREN

Cu SO<sub>4</sub> per liter 341.52 grams

H<sub>2</sub> SO<sub>4</sub> per liter 30.82 cc

Redford

35T-150M-3-80

MEMORANDUM  
THOMAS A. EDSON INDUSTRIES

MR.

Archer

DATE

3/19/21

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FORWREN

H<sub>2</sub> SO<sub>4</sub> / liter 29.32 cc

Cu SO<sub>4</sub> / liter ~~235~~ 11 grams  
335

Redford

[ITEM(S) FOUND IN BOOK]

Acrode chamber wt, 6 lbs  
 approx 8 1/2 lbs.

Shot 29 lbs with piston  
 piston length 1 3/4 lbs.

29 1/2  
 1 3/4  
 27 3/4

5736  
 5882  
 11472  
 45888  
 28680  
 393835

[ITEM(S) FOUND IN BOOK]

DET-100M-9-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

MR. \_\_\_\_\_

DATE 3/21/21

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION \_\_\_\_\_

H<sub>2</sub>SO<sub>4</sub> - / liter  
Cu SO<sub>4</sub> / liter

29.48 cc.  
336.26

*Ridford*

Mar 22

Cu SO<sub>4</sub> - 347.2 μL  
H<sub>2</sub>SO<sub>4</sub> - 29.6 μL

DET-100M-9-20

MEMORANDUM  
THOMAS A. EDISON INDUSTRIES

MR. \_\_\_\_\_

DATE 3/24/21

AVOID VERBAL MESSAGES  
CONFIRM VERBAL UNDERSTANDINGS

FUNCTION \_\_\_\_\_

not H<sub>2</sub>SO<sub>4</sub> - 34.55 cc / liter  
Cu SO<sub>4</sub> - 235.11 grams / liter

Reg. H<sub>2</sub>SO<sub>4</sub> - 2854 cc per liter  
Cu SO<sub>4</sub> 279.26 grams / liter

*Ridford*

[ITEM(S) FOUND IN BOOK]

#6 Cu Bath

13.74 Amp start

Ran to 600 Amps  
1 hour

One nickel washed well.  
rinsed with distilled water  
Close switch before putting in then  
put in & put belt on as quick as  
possible -

#6 Bath Copper plate

Revolve 2 minutes in bath no current  
Ran to 46 Amp hours, taken out and  
washed well.

Rinsed with distilled water  
Close switch before putting in then put in  
and put belt on as quick as possible  
Ran to 604 Amp. hours. 46 hours

about 13 Amp. per hour.

Remarks.

Rotator stuck and  
did not go down  
properly.

[ITEM(S) FOUND IN BOOK]

#8 Bath. 1 min Electric  
2nd One clean it with Electric  
Cleaner - Wash well - rinse  
distilled water + put in the  
bath. Exactly the same as No 1

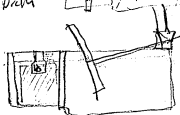
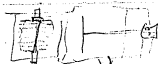
#8 Bath Copper plate.  
Revolve 2 minute in bath no current  
Ran to 84 Amps hours.  
One minute Electric Cleaner, wash well - rinse  
distilled water.  
Put in the bath with current on, and put belt  
on as soon as possible.  
Ran to 747 Amps hours in 46 hours  
about 16 Amps Bath hours



**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Plating Experiments**  
**Notebook, N-20-06-09**

This notebook was used during June-August and November-December 1920 by Edison, Walter N. Archer, Irving Adelsohn, Frank Detlef, Jr., Howard F. Redford, and possibly other experimenters. The entries pertain to the plating processes involved in the manufacture of disc records. The entries on the first page are by Edison, and there are occasional Edison notations on other early entries. The first part of the book contains tabular reports by Archer that provide a daily record of molds plated in "Bath 2" during June-July 1920. These tables are followed by records for Baths 1 and 2 for July-August. The second half of the book contains entries from November-December 1920 for experiments, numbered 1-50, that focus on improvements in the copper plating process, such as increasing the speed. These experiments are continued in N-20-06-08.2. Among the numerous items inserted into the book are instructions by Edison, notes exchanged between Edison and Archer, along with notes from Detlef and Adelsohn to Archer with results noted in the daily record. The front cover is labeled "2" and is marked "Disc Fast Plating #1 to #50 Exper Copper." The pages are unnumbered. Approximately 125 pages have been used.

No 2 Bolt



No face

First disc in

Time	Spec	Volts	Amps	Temp
3:00 PM	1170	9.5	21	80
4:00	1170	9.5	21 1/4	83
5:00	1170	9.5	22	83
6:00	1170	9.5	22	83
7:00	1170	9.5	22	81
8:00	1170	9.5	22 1/4	80
9:00	1170	9.5	22	80
10:00	1170	9.5	22	80
11:00	1170	9.5	22	82
12:00	1170	9.5	22	82
1:00	1170	9.5	22	82
2:00	1170	9.5	23	82
3:00	1170	9.5	22 1/2	82
4:00	1170	9.5	23	83

288 1/2

	Spec	Volt	Amp	Temp	
					No 203 <sup>oth</sup>
					June 10
5.00	1170	9.5	22	83	
6.00	1170	9.5	22½	82	
7.00	1170	9.5	23	83	
8.00	1170	9.5	21½	83	
9.00	1170	9.5	23	83	
10.00	1170	9.5	22	80	
11.00	1175	9.5	22	81	
12.00	1175	9.5	22	82	
2.00	1175	9.5	21	82	+ 199
3.00	1175	9.5	22	82	
4.00	1175	9.5	21	80	
5.00	1175	9.5	21	80	
6.00	1175	9.5	21	81	
7.00	1175	9.5	22	80	
8.00	1175	9.5	22	80	
9.00	1175	9.5	22	80	
10.00	1170	9.5	22	80	
1.00	1170	9.5	22	80	31 hr
2.00	1170	9.5	20	81	
3.00	1170	9.5	20	80	
4.00	1170	9.5	20	81	
5.00	1170	9.5	20	80	
6.00	1170	9.5	20	80	
7.00	1170	9.5	20	82	
8.00	1170	9.5	20	80	39

Mr Moore has this mould

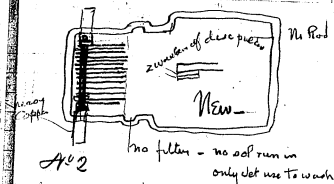
{ No 2 First Disc  
862.amps in 40 hours  
out June 11th. 8. am }

No 2 Beth First Disc in

Spec	Volt	Amps	Temp
8.00	1170	9.5	20
OUT	put		
AM			

June 11th

Brook broken



Time	SG	Volt	Amp	Temp	Remarks
1:30	1170	9.5	23	83	
2:30	1170	9.5	23	88	
3:30	1170	9.5	27	83	
4:30	1170	9.5	27	80	
5:30	1170	9.5	27	83	
6:30	1170	9.5	27	83	
7:30	1170	9.5	27	83	
8:30	1170	9.5	27	83	
9:30	1170	9.5	27	83	
10:30	1170	9.5	27	82	
11:30	1170	9.5	27	80	
12:30	1170	9.5	26	80	
June 12		AM			
1:30	1170	9.5	26	80	
2:30	1170	9.5	27	80	
3:30	1170	9.5	27	82	

at 4:50 P.M.  
Starting to blow

148

50

At 2

Time	SG	Volt	Amp	Temp	Bath No 2
1:30	1170	9.5	27	82	
2:30	1170	9.5	27	80	
3:30	1170	9.5	26	82	
4:30	1170	9.5	27	82	
5:30	1170	9.5	26 1/2	82	21 Distilling
6:30	1170	9.5	26	83	
7:30	1170	9.5	26	82	
8:30	1170	9.5	25	83	
9:30	1170	9.5	25	83	
10:00	1170	9.5	24	83	
11:00	1170	9.5	25	83	
12:00	1170	9.5	24	82	
1:00	1170	9.5	24	80	
2:00	1170	9.5	24	82	
3:00	1170	9.5	24	83	
4:00	1170	9.5	23	83	
5:30	1170	9.5	12	83	Out

No 2 First Liec

868 Amp in 33 1/2 per hour  
at 26 Amp per hour

Cut June 12 - 8:30 PM

12 Pon <sup>B2</sup> 2 disc some mode

	Spec.	Volts	amp.	Temp.	Temp.
1.00	1170	9.5	22	81	
2.00	1170	9.5	22	80	22
3.00	1170	9.5	23	84	45
4.00	1170	9.5	24	84	69
5.00	1170	9.5	24	82	93
6.00	1170	9.5	24	82	117
7.00	1170	9.5	24	82	141
8.00	1170	9.5	24	82	166
9.00	1170	9.5	25	81	191
10.00	1170	9.5	24	84	215
11.00	1170	9.5	23	82	238
12.00	1170	9.5	23	82	261
13.00	1170	9.5	23	82	284
14.00	1170	9.5	23	81	307
15.00	1170	9.5	23	81	330
16.00	1175	9.5	23	81	353
17.00	1175	9.5	23	82	376
18.00	1175	9.5	22	82	398
19.00	1175	9.5	22	82	420
20.00	1175	9.5	22	82	442
21.00	1175	9.5	22	82	464
22.00	1175	9.5	22	83	486
23.00	1175	9.5	22	83	508
24.00	1175	9.5	22	80	530
25.00	1175	9.5	22	80	552
26.00	1170	9.5	23	80	575

June 14

Bath No 2 Disc

M	Sp	Bolt	Comp	Temp	Total Comp
0	1170	9.5	22	80	598
00	1170	9.5	22	81	610
00	1170	9.5	22	82	632
00	1170	9.5	22	80	654
00	1170	9.5	22	80	676
00	1170	9.5	22	82	698
00	1170	9.5	22	81	720
00	1175	9.5	22	80	742
0	1170	9.5	20	83	762
0	1170	9.5	22	83	784
0	1170	9.5	22	83	806
0	1170	9.5	22	83	828
0	1170	9.5	22	80	850
00	1175	9.5	22	80	872

Cable broken off 2:00 P.M.

big take.

No 2 Bath Disc Out

8.72 Amp in 39 hours  
at about 22 Amp

Out June 14 - 2:00 O'clock P.M.



about 1/2 eaten away  
some of the Nickel  
is gone & some left.

They want answers  
how & where would they give  
an idea of the Redoubt etc.



#2 Bath		#1 disc. Copper with Arcti abld. Stopped Bath			
2922 started		Special Expt.			
Sp. Sol.	Volts	Amps.	Temp.	Time	Stopped Bath.
1175	10	11	85		70.0 not circulating
1175	10	11.5	85	11	
—	10	13	104	24	
—	10	13	112	37	
—	10	13	115	50	
—	10	14	116	64	
—	10	14	119	78	
—	10	14	121	92	
—	10	14	120	106	
—	16	12	120	120	
—	30				
—	10	14	119	121	
—	10	14	128	148	
—	10	14	128	162	
—	10	14	129	176	
—	10	14	119	190	
—	10	14	120	204	
—	10	14	120	218	
—	10	14	119	232	
—	10	14	120	246	acti added
—	10	14.5	122	260	
—	10	14.5	125	275	acti acid
—	10	14.5	125	289	" "
—	10	14.5	126	303	added 300 cc fresh solution
—	10	14.5	126	318	

44.5) 629.2 (14.1)  
 44.5  
 1840  
 17800

Special Exper.

#2 Bath

Start June 29 20. - 3.30 PM.

Finish July 1, 20. -

Total Amps 629

" hours 44.5

Average Amps 14.1

Stopped bath - not circulating  
 Copper with Acetic Acid

#2 Bath

#1 disc Copper with Acetic acid - Stopped bath

Special Exper.

June 30, 20. PM.

Time	Op. No.	Volts	Amps	Temp	Total	Solution not circulating
3 PM	1	10	14.5	126	332	
4	1	10	14.5	126	347	
5	1	10	15	127	362	added 3000 cc H <sub>2</sub> O
6	1	10	15	127	377	
7	1	10	15	128	392	
8	1	10	14.5	124	406	
9	1	10	14.5	122	421	
10	1	10	14.5	122	435	
11	1	10	13.5	120	449	
12	1	10	13.5	120	462	
July 1-20						
10	10	10	13.5	117	476	
11	10	10	13	117	487	
12	10	10	13.5	118	502	
13	10	10	14	120	516	
14	10	10	14	120	530	
15	10	10	14	120	544	
16	10	10	14	120	558	
17	10	10	14	120	572	
18	10	10	14	121	586	added Acetic acid
19	10	10	14	120	600	
20	10	10	14.5	123	615	added 200 cc H <sub>2</sub> O
21	10	10	14.5	123	629	final

Big Cu Strap Req- Scrap Cu  
Particular Req Linen & Cloth

Ms 2 Beth 1st Disc in

Wt	Sh	Wt	Comp	Comp	Wt
1165	9-5	16	80		
1165	9-5	16	80		16
1165	9-5	16	80		32
1165	9-5	16	80		48
1165	9-5	16	80		64
1165	9-5	16	80		80
1165	9-5	16	80		96
1165	9-5	16	80		112
1165	9-5	16	80		128
1165	9-5	16	80		144
1165	9-5	16	80		160
1165	9-5	16	80		176
1165	9-5	16	80		192
1165	9-5	16	80		208
1165	9-5	16	80		224
1165	9-5	16	80		240
1165	9-5	16	80		256
1165	9-5	16	80		272
1165	9-5	16	80		288
1165	9-5	16	80		304
1165	9-5	16	80		320
1165	9-5	16	80		336
1165	9-5	16	80		352
1165	9-5	16	80		368
1165	9-5	16	80		384
1165	9-5	16	80		400

Not a note on

009 off -

No 2 Bath 1st disc

Cleaned up .044

Outside Caliper = .053  
Inside " = .062

45)  $\frac{747}{270}$  (16.6

Run Total to 750 Amps.

Both # 2 #1 disc.

After cleaning tanks free from grease and oil.

Start July 3, 20. 11 P.M.

Finish " 5, 20.

Total Amps 747

" hours 45

Average Amps 16.6

Time	Volts	Current	Temp	Notes
11:00	116.5	9-5	17	81
12:00	116.5	9-5	16 1/2	81
1:00	116.5	9-5	16 1/2	81
2:00	116.5	9-5	16 1/2	81
3:00	116.5	9-5	15	81
4:00	116.5	9-5	16	81
5:00	116.5	9-5	16	81
6:00	116.5	9-5	16	81
7:00	116.5	9-5	15 1/2	81
8:00	116.5	9-5	16	81
9:00	116.5	9-5	16	81
10:00	116.5	9-5	16	81
11:00	116.5	9-5	16	81
12:00	116.5	9-5	16 1/2	81
1:00	116.5	9-5	16	81
2:00	116.5	9-5	16 1/2	81
3:00	116.5	9-5	16 1/2	81
4:00	116.5	9-5	16 1/2	81
5:00	116.5	9-5	17	81
6:00	116.5	9-5	17	81
7:00	116.5	9-5	16	81

not a not on

not a not on

-

not a not on

out

45 hrs

Mould on 2nd edge not  
rounded off.

Disc. revolves 1 1/2 R.P.M.

$$\begin{array}{r} 205 \mid 326 \frac{1}{2} \\ \underline{205} \\ 121 \frac{1}{2} \\ \underline{121} \\ 1 \frac{1}{2} \end{array} \quad 15.9$$

#2 Bath #2 disc  
Start July 6, 20. 2 P.M.  
Finish " 7, 20. 11 P.M.  
Total amp = 326  
" hours = 20 1/2  
Average amp = 15.9

#2 Bath 2nd Disc

Time	Sh	Talk	Amp	Time	Total
7:00	1165	9-5	14 1/2	75	15
7:00	1165	9-5	15	80	80
7:00	1165	9-5	15	83	80
7:00	1165	9-5	16 1/2	83	46
7:00	1165	9-5	16 1/2	84	63
7:00	1165	9-5	17 1/2	84	80
7:00	1165	9-5	17 1/2	84	98
7:00	1165	9-5	17 1/2	84	115
7:00	1165	9-5	18	84	133
7:00	1165	9-5	16	84	149
7:00	1165	9-5	15	84	164
7:00	1165	9-5	15	84	179
7:00	1165	9-5	15	84	194
7:00	1165	9-5	15 1/2	84	210
7:00	1165	9-5	15 1/2	84	225
7:00	1165	9-5	15 1/2	84	241
7:00	1165	9-5	15 1/2	84	256
7:00	1165	9-5	15 1/2	84	272
7:00	1165	9-5	15	84	287
7:00	1165	9-5	16	85	303
7:00	1165	9-5	15 1/2	85	318
7:00	1165	9-5	15 1/2	83	326

Out.

20 1/2 hrs

Added 5 cc general bath dope  
to plating solution 11:30 AM

# #2 Bath

Start July 7, 20 11:30 AM

Time	Sp. No.	Voltage	Amp.	Temp.	Total
1:30	1165	9.5	14.5	82	
2:30	1165	9.5	14.	82	14
3:30	1165	9.5	15.	83	29
4:30	1165	9.5	15.	83	44
5:30	1165	9.5	15.	84	59
6:30	1165	9.5	15.	85	74
7:30	1165	9.5	15.	85	89
8:30	1165	9.5	15	84	104
9:30	1165	9.5	15	84	119
10:30	1165	9.5	15	83	134
11:30	1165	9.5	14.5	83	149
12:30	1165	9.5	15.5	82	165
1:30	1165	9.5	15	82	180
2:30	1165	9.5	15	82	195
3:30	1165	9.5	15	82	210
4:30	1165	9.5	15	82	225
5:30	1165	9.5	15	82	240
6:30	1165	9.5	15.5	82	255
7:30	1165	9.5	15.5	82	271
8:30	1165	9.5	15.5	82	286
9:30	1165	9.5	15.5	82	302
10:30	1165	9.5	15.5	82	317
11:30	1165	9.5	16	80	333
12:30	1165	9.5	16	80	349

# #3 chis c

$$\begin{array}{r}
 29 \overline{) 442} \quad 15.2 \\
 \underline{58} \phantom{0} \\
 152 \phantom{0} \\
 \underline{145} \phantom{0} \\
 70
 \end{array}$$

#2 Bath

#3 disc.

Volts	Sp. Wt.	Volt	Amper	Time	Total
11.20	11.65	9.5	16	82	365
11.30	11.65	9.5	16	82	381
11.40	11.65	9.5	16	80	397
11.50	11.65	9.5	15	80	412
11.60	11.65	9.5	15	80	427
11.70	11.65	9.5	15	80	442

Cost

Test #1 Copper disc. 8-4  
 then 80 Amp hours, then was  
 and wheel dry & put in Cu  
 bath for 600 Amp hours.  
 Then give to Nicholson to try  
 to peel off if possible.  
 Revolved before in plate for 2 min.

9 | 89 | 9.7

#1 Bath Nickel plate #1 disc,  
 2 R.P.M. on disc. Last anode  
 Started July 7, 20 - 2:10 P.M.  
 Finish " 9, 20 - 11:12 P.M.  
 Total Amps = 89  
 " hours = 9  
 Average Amps = 9.7

#1 Bath		#1 disc, Nickel Plate			
Volts	Amps	Volts	Amps	Temp.	Total
12.80	9.5	8	80		
12.80	9.5	8.5	85	8	
12.80	9.5	8.5	90	17	
12.80	9.5	10	92	23	
12.80	9.5	10.5	92	37	
12.80	9.5	10.5	92	48	
12.80	9.5	10.5	100	58	
12.80	9.5	10.5	100	69	
12.80	9.5	10	100	79	
12.80	9.5	10.5	98	89	

Out  
 transfer to #6  
 tank Copper plate



R-4  
 2 min in Ni no current to 40 amp.  
 Mash wash, then rinse with city  
 water, then distilled water, and put  
 in mash press, then distilled water. 2 min  
 in copper bath, no current, then  
 run at 600 amperes.

# #1 Bath Ni

Start July 7, 20.

Water Temp	Voltage	Amp	Temp	Total
62 PM 1280	9.5	11	92	
4 M July 8, 20.				
1 AM 1280	7.5	11	92	11
2800	1280	9.5	10	95 21
3200	1280	7.5	10	95 31
1200	1280	7.5	10	95 41
500	1280	7.5	10	95 51
1200	1280	7.5	10	96 61
700	1280	7.5	10	96 71
800	1280	7.5	7.5	96 80
900	1280	9.5	10	94 90 added 2 galen
930	1280	9.5	10	94 95 dist H <sub>2</sub> O

No Skimmer in Ni  
 bath.

Transfer to #4  
 Copper plate  
 bath.

# #2 disc.

Unlocked bath  
 last anode

Rotated 30 Min. with 55<sup>00</sup>

Rubber cement from combination rubber & lead

Rotate at 26 R.P.M.

Test for knots, rubber varnish  
Remarks Copper cement floating through  
stemmer to near to disc.

Ran to 480 Amper then give to  
Mr Edison to recast with rubber,  
the knots on back of disc.

Added 10<sup>00</sup> gr. bath dye to  
copper plate sol. at 11 AM July 9

## #2 Bath

Test for <sup>disc</sup> probe  
Rubber varnish

July 8, 20	Started	5-PM.					
Spgr	Volts	Amper	Temp	Total			
1165	9.5	16	80				Remarks
1165	9.5	15.5	80	15			Test for knots
1165	9.5	15.5	80	81			on back of
1165	9.5	15.5	80	46			disc. 55 <sup>00</sup>
1165	9.5	15.5	80	62			rubber Ist #1
1165	9.5	15.5	80	77			
1165	9.5	15.5	80	93			
1165	9.5	15	80	108			
July 9							
1165	7.5	15	80	123			
1165	7.5	15	80	138			
1165	7.5	15	80	153			
1165	7.5	15	80	168			
1165	7.5	15	80	183			
1165	7.5	15.5	80	198			
1165	7.5	15.5	80	214			
1165	7.5	15	80	229			
1165	9.5	15.5	78	234			
1165	9.5	16.5	79	251			added anode strap
1170	9.5	17	80	268			
1165	9.5	18	80	286			
1165	9.5	18	82	304			
1165	9.5	18	81	322			
1165	9.5	18	81	340			
1165	9.5	18	80	358			

$$\begin{array}{r}
 42 \overline{) 7038} \quad 167 \\
 \underline{283} \\
 212 \\
 \underline{212} \\
 0
 \end{array}$$

# # 2 Bath

July 9, 20	Sp. Res	Volts	Amp	Temp	Total	Remarks
5.00	1165	9.5	17.5	80	375	
6.00	1165	9.5	17.5	80	393	
7.00	1165	9.5	17.5	80	410	55 cc Rubber
8.00	1165	9.5	18.5	80	429	
9.00	1165	9.5	19	80	448	
10.00	1165	9.5	19.5	80	467	
11.00	1165	9.5	19	80	486	
12.00	1165	9.5	19	80	505	
July 10, 20						
1.00	1165	9.5	19	80	524	
2.00	1165	9.5	19	80	543	
3.00	1165	9.5	19	80	562	
4.00	1165	9.5	19	80	581	
5.00	1165	9.5	19	80	600	
6.00	1165	9.5	19.5	80	620	
7.00	1165	9.5	19.5	80	639	
8.00	1165	9.5	19	80	658	
9.00	1165	9.5	19	80	677	
10.00	1165	9.5	18	80	685	
11.00	1165	9.5	18	80	703	

4<sup>th</sup> rise  
55 cc Rubber

Cent  
Not as good  
as the 60 cc  
rubber.

№ 2 Bath Exp on large Disc  
1st Disc

1st Dec

Time	Ln	Volts	Amper	Temp	Notes
1:50	1165	9-5	14-5	86	
2:00	1165	9-5	14-5	86	14
2:10	1165	9-5	15	80	36
2:20	1165	9-5	16-5	86	46
2:30	1165	9-5	17	80	63
2:40	1165	9-5	16-5	80	80
2:50	1165	9-5	16-5	80	96
3:00	1165	9-5	16-5	80	113
3:10	1165	9-5	16-5	80	129
3:20	1165	9-5	17	80	146
3:30	1165	9-5	17	80	163
3:40	1165	9-5	17	80	180
3:50	July 11				
4:00	1165	9-5	17	80	177
4:10	1165	9-5	18	86	215
4:20	1165	9-5	17	80	232
4:30	1165	9-5	17	80	249
4:40	1165	9-5	17	80	266
4:50	1165	9-5	17	80	283
5:00	1165	9-5	17	86	300
5:10	1165	9-5	17	80	317
5:20	1165	9-5	17-5	86	334
5:30	1165	9-5	19	80	353
5:40	1165	9-5	17-5	80	370
5:50	1165	9-5	12-5	80	388

$$\begin{array}{r}
 47 \overline{) 798} \quad (16.9 \\
 \underline{471} \phantom{0} \\
 328 \\
 \underline{282} \\
 460 \\
 \underline{423}
 \end{array}$$

Large disc Expt.

Start July 10, 20 at 1 PM  
 Finish " 12, " " 2."  
 Total Amps = 798  
 " hours = 47  
 Average Amp. = 16.9

M:2 Bell Large disc

Sh	Volts	Amps	Time	Notes
1165	9-5	17.5	80	405
1165	9-5	17.5	80	422
1165	9-5	17-5	80	439
1165	9-5	18	81	457
1165	9-5	18-5	81	475
1165	9-5	18-5	81	494
1165	9-5	18	81	511
1165	9-5	18	81	529
1165	9-5	17	81	546
1165	9-5	17	81	563
1165	9-5	16.2	81	579
1165	9-5	16.2	81	595
1165	9-5	16.2	81	612
1165	9-5	16.2	81	628
1165	9-5	16.2	81	645
1165	9-5	16.2	81	661
1165	9-5	17	81	678
1165	9-5	17	81	695
1165	9-5	17	83	712
1165	9-5	17	82	729
1165	9-5	17	82	746
1165	9-5	17	80	763
1165	9-5	17.5	80	780
1165	9-5	17.5	80	798

cut

160 Amps. Ni plated  
2 minutes no current on dry.  
Put in wet  
One minute at 2.3 Amps  
6<sup>th</sup> notch  
Then full current on

2. Bath

dated July 12, 20. 5<sup>30</sup> P.M.

	Spd	Volt	Temp	Freq	Total
5	1165	9.5	16	80	
5	1165	9.5	16.5	80	16
7	1165	9.5	16.5	80	33
8	1165	9.5	16.5	80	49
9	1165	9.5	17	81	66
9	1165	9.5	16.5	83	83
10	1165	7.5	16.5	83	97
12	1165	7.5	16.5	83	115

July 13, 20					
-------------	--	--	--	--	--

10	1165	7.5	17	81	133
20	1165	7.5	17	81	147
30	1165	7.5	17	81	156
40	1165	7.5	17	81	183
50	1165	7.5	17	81	206
60	1165	7.5	17	81	217
70	1165	7.5	17.5	82	235
80	1165	7.5	17.5	82	250
90	1165	7.5	18	82	272
100	1165	7.5	17	82	287
110	1165	7.5	17.5	83	304
120	1165	7.5	18.5	83	323
130	1165	7.5	18.5	85	341
140	1165	7.5	18.5	85	360
150	1165	7.5	17.5	85	377
160	1165	7.5	18	85	383

$$\begin{array}{r}
 45 \overline{) 777} \quad (17.2 \\
 \underline{45} \times 8 \\
 327 \\
 \underline{315} \\
 120 \\
 90
 \end{array}$$

Start July 12 20-530 PM.  
 Finish " 14 " 230 PM  
 Total Camps 777  
 " hours 45  
 Average Camps 17.2

2 Bath

Time	Wells	Camp	Temp	Total	355
10:30	1165	9.5	18	80	403
11:00	1165	9.5	18	80	421
11:30	1165	9.5	18.5	80	440
12:00	1165	9.5	18.5	85	458
12:30	1165	9.5	18	84	474
1:00	1165	9.5	17.5	88	491
1:30	1165	9.5	17.5	83	519
2:00	1165	9.5	17.5	83	536
2:30	1165	9.5	17.5	83	554
3:00	1165	9.5	17	83	571
3:30	1165	9.5	17	83	588
4:00	1165	9.5	17	83	605
4:30	1165	9.5	17	83	622
5:00	1165	9.5	17	84	637
5:30	1165	9.5	17	84	652
6:00	1165	9.5	16.5	83	669
6:30	1165	9.5	17.5	80	690
7:00	1165	9.5	17.5	80	717
7:30	1165	9.5	17.5	80	725
8:00	1165	9.5	17.5	80	742
8:30	1165	9.5	17.5	80	760
9:00	1165	9.5	17.5	80	777

Cost

Hi face disc.

20 pcc. Electric Cleaner, wash in  
whirler common water, then rinse  
distilled water.

20 pcc. ins 8-4, then wash in  
whirler and rinse distilled  
water, and dry on whirler.

Put in hi bath dry, revolve 2 Mi.

then full current.

Total amp hrs plated  
(51)

Water drained off disc before  
putting in liq bath.  
Full current on.

## #2 Bath

Started July 14 20

@ 5:30 PM

Time	Temp	Amp	Volts	Temp	Total
30	116.5	9.5	16	85	
30	116.5	9.5	16	85	16
30	116.5	9.5	16	85	32
30	116.5	9.5	17 1/2	85	49
30	116.5	9.5	18	85	67
30	116.5	9.5	18	85	85
30	116.5	9.5	18	85	103
30	116.5	9.5	18	83	121
30	116.5	9.5	18	83	139
30	116.5	9.5	18	83	157
30	116.5	9.5	18	83	175
30	116.5	9.5	18	81	193
30	116.5	9.5	18	81	211
30	116.5	9.5	18	81	229
30	116.5	9.5	18	81	247
30	116.5	9.5	18	81	265
30	116.5	9.5	18	81	283
30	116.5	9.5	18	81	301
30	116.5	9.5	18	81	319
30	116.5	9.5	18	81	337
30	116.5	9.5	18	81	355
30	116.5	9.5	18	81	373
30	116.5	9.5	18	81	391
30	116.5	9.5	18	81	409

Transfer from  
#2 Ni Bath  
51 Amp hrs  
Plated



$$\begin{array}{r} 40 \times 760 \\ \hline 40 \\ \hline 360 \end{array} (19)$$

Total Amps = 760  
 " hours = 40.  
 Average Amps = 19

## #2 Bath

Sp. g.	Volt	Amps	Temp	Total	hrs
1165	9.5	18	80	431	4.13
1165	9.5	19	80	450	
1165	9.5	20	82	470	2.6
1165	9.5	20	82	490	
1165	9.5	21	83	511	
1165	9.5	22	72	533	
1165	9.5	22	72	555	
1165	9.5	22	70	579	
1165	9.5	20.5	70	597	
1165	9.5	20.5	70	618	
1165	9.5	20.5	72	639	
1165	9.5	20.5	72	659	
1165	9.5	20.5	70	677	
1165	9.5	20.5	70	697	
1165	9.5	20	70	718	
1170	9.5	20	87	760	40 hrs

after 30 min with current open  
percent for 20 min then

Put in dry, upper bath  
full overnight and

#2 Bath  
started July 16 20- at 11 am

	Sp. Ht	Volt	Temp	Total
1	1165	9.5	18.5	91
2	1165	9.5	20.5	97
3	1165	9.5	21	89
4	1165	9.5	22	90
5	1165	9.5	22	94
6	1165	9.5	21	90
7	1165	9.5	20	90
8	1165	9.5	20	90
9	1165	9.5	20	88
10	1165	9.5	19.5	88
11	1165	9.5	20	88
12	1165	9.5	20	88
13	1165	9.5	20	89
14	1165	9.5	20	89
15	1165	9.5	20	89
16	1165	9.5	20	89
17	1165	9.5	20	89
18	1165	9.5	20	89
19	1165	9.5	20	89
20	1165	9.5	20	89
21	1165	9.5	20	89
22	1165	9.5	20	89
23	1165	9.5	20	89
24	1165	9.5	20	89
25	1165	9.5	20	89
26	1165	9.5	20	89
27	1165	9.5	20	89
28	1165	9.5	20	89
29	1165	9.5	20	89
30	1165	9.5	20	89
31	1165	9.5	20	89
32	1165	9.5	20	89
33	1165	9.5	20	89
34	1165	9.5	20	89
35	1165	9.5	20	89
36	1165	9.5	20	89
37	1165	9.5	20	89
38	1165	9.5	20	89
39	1165	9.5	20	89
40	1165	9.5	20	89
41	1165	9.5	20	89
42	1165	9.5	20	89
43	1165	9.5	20	89
44	1165	9.5	20	89
45	1165	9.5	20	89
46	1165	9.5	20	89
47	1165	9.5	20	89
48	1165	9.5	20	89
49	1165	9.5	20	89
50	1165	9.5	20	89
51	1165	9.5	20	89
52	1165	9.5	20	89
53	1165	9.5	20	89
54	1165	9.5	20	89
55	1165	9.5	20	89
56	1165	9.5	20	89
57	1165	9.5	20	89
58	1165	9.5	20	89
59	1165	9.5	20	89
60	1165	9.5	20	89
61	1165	9.5	20	89
62	1165	9.5	20	89
63	1165	9.5	20	89
64	1165	9.5	20	89
65	1165	9.5	20	89
66	1165	9.5	20	89
67	1165	9.5	20	89
68	1165	9.5	20	89
69	1165	9.5	20	89
70	1165	9.5	20	89
71	1165	9.5	20	89
72	1165	9.5	20	89
73	1165	9.5	20	89
74	1165	9.5	20	89
75	1165	9.5	20	89
76	1165	9.5	20	89
77	1165	9.5	20	89
78	1165	9.5	20	89
79	1165	9.5	20	89
80	1165	9.5	20	89
81	1165	9.5	20	89
82	1165	9.5	20	89
83	1165	9.5	20	89
84	1165	9.5	20	89
85	1165	9.5	20	89
86	1165	9.5	20	89
87	1165	9.5	20	89
88	1165	9.5	20	89
89	1165	9.5	20	89
90	1165	9.5	20	89
91	1165	9.5	20	89
92	1165	9.5	20	89
93	1165	9.5	20	89
94	1165	9.5	20	89
95	1165	9.5	20	89
96	1165	9.5	20	89
97	1165	9.5	20	89
98	1165	9.5	20	89
99	1165	9.5	20	89
100	1165	9.5	20	89

Transferred from  
#1 to Bath  
July 16, 20,  
Total Amps 1165

# N<sup>o</sup> 2 Bath

July-17-20

Time	Wells	Temp	Temp	Total
11:00	1165	9-5	19	93
11:05	1165	9-5	19	90
11:10	1170	9-5	18.5	90
11:15	1170	9-5	20	95
11:20	1170	9-5	20	95
11:25	1170	9-5	19.5	93
11:30	1170	9-5	19.5	95
11:35	1170	9-5	20	93
11:40	1170	9-5	20	90
11:45	1170	9-5	20	90
11:50	1170	9-5	19.5	90
11:55	1170	9-5	19	89

Out 20 <sup>Temp</sup> 36 hours  
 20 <sup>Temp</sup> 36 hours

Total Temp - 726  
 " hours 36  
 Average Temp = 20.16 hours  
 Out July-17-20

Revised 60 min then full  
current in bath  
H<sub>2</sub>A Nickel Zinc pent m  
No 2 Cop/su bath dry  
full current on  
July 17-11:00 P.M.

After 10 minutes copper color  
on face of disc ~~lost~~  
Note how slippery.

## No 2 Baths

Started July 17-20					
M <sub>2</sub> H <sub>2</sub> A Cop/su bath					
11:00	11:30	9-5	18-5	90	
11:00	11:30	9-5	18-5	92	18
July 18-20					
11:00	11:30	9-5	18	92	36
11:00	11:30	9-5	18	92	54
11:00	11:30	9-5	18-5	92	72
11:00	11:30	9-5	19	92	91
11:00	11:30	9-5	19	92	110
11:00	11:30	9-5	20	90	130
11:00	11:30	9-5	20	90	150
11:00	11:30	9-5	19-5	90	170
11:00	11:30	9-5	19-5	90	189
11:00	11:30	9-5	19	90	208
11:00	11:30	9-5	19	90	227
11:00	11:30	9-5	19	90	246
11:00	11:30	9-5	19-5	92	265
11:00	11:30	9-5	19-5	92	284
11:00	11:30	9-5	19-5	92	304
11:00	11:30	9-5	20	94	324
11:00	11:30	9-5	20	94	344
11:00	11:30	9-5	19	94	363
11:00	11:30	9-5	19	94	382
11:00	11:30	9-5	19	94	401
11:00	11:30	9-5	19	90	420
11:00	11:30	9-5	19	90	439

Transformed from  
#1 in bath  
July 17, 20.  
10:15 P.M.  
98 am 10:15 P.M.

$$\begin{array}{r} 385 / 735 \times / 19 \\ \underline{385} \\ 3850 \\ \underline{3850} \\ 250 \end{array}$$

Total Amps 735  
 " hours 38 1/2  
 Average Amps 19



# 922 Bath

6/18-20

PM L.H.	Volt	Amp	Temp	Total	
11:00	117.6	9.5	19	90	458
11:00	117.0	9.5	19	90	477
11:01	117.0	1.9			
11:02	117.6	9.5	19	90	475
11:03	117.0	9.5	17	90	515
11:04	117.0	9.5	17	90	534
11:05	117.0	9.5	17	90	553
11:06	117.0	9.5	17	90	572
11:07	117.0	9.5	17	90	591
11:08	117.0	9.5	17	90	610
11:09	117.0	9.5	17	90	629
11:10	117.0	9.5	19	90	648
11:11	117.0	9.5	19	90	667
11:12	116.5	9.5	19	90	686
11:13	116.5	9.5	19	94	705
11:14	116.5	9.5	20	94	725
11:15	116.5	9.5	20	92	735

Trace of Copper Defect  
 noticed at 12 PM Sunday night  
 July 18  
 Get

# Start of Experiments

July 20, 12:45 PM				No BATH	
1	2	3	4	5	6
105	105	12:30		1A	2H
105	105	"		12	12:5
103	105	"		12:5	12:5
103	104	"		12:5	12:5
104	104	"		12	12:5
104	104	"		12	12:5
Total Amps				61	62
				Cont	Cont
July 20, 12:45 PM	July 20, 12:45 PM	July 20, 12:45 PM	July 20, 12:45 PM	1	2
104	104	12:50		3A	4A
104	103	12:50		10	11:5
103	103	12:50		10	23
104	104	12:50		10	34
103	100	12:50		10	46
107	105	12:50		12	57
106	105	"		12	69
106	104	"		10	80
98	98	"		65	92
98	98	"		Cont	103
98	98	"			115
98	98	"			126
97	97	"			137
96	96	"			148
96	96	"			159
					170

Both Moulds showed signs of breaking at 1.15 AM

Hi Batho

[illegible]

# #1 ni Bath

Started Aug. 19-26

Time	Temp	Watts	Amp	Total
11:00	187.5	162	9.5	3
11:20	"	"	"	3
11:40	"	"	"	3
12:00	"	"	"	6

Transfer to  
L. Upper Bath  
#6



# #2 N. Bath

Time	Temp	Voltage	Amp	Total
10:12	102	9.5	3	
30	"	"	3	3
0	"	"	3	6

Transfer to  
Copper Bath  
#7

#1 Nickel Bath

Started Aug. 20

mi	87%	Temp	Voltage	amp	Total
0	12.75	98	9.5	3	—
0	"	98	"	3.5	3

Gwt

# #2 Nickel Bath

Started Aug 20

Temp	Volts	Amps	Total
120	98	3	
125	98	3	
126	98	3.5	

Gut

Mr Edison  
 Telegraph Message  
 Female direct  
 Working 3 hrs then  
 14 Amps  
 full current on

#2 Ni Bath					
Aug 23	20	at 11 PM			
TIME	Sp. Gr.	Temp	Volts	Amps	Total
PM 1270	100	9.5	4	4	4
PM "	"	"	4	4	8
PM "	"	"	4	4	12
PM "	"	"	4	4	16
PM "	"	"	4	4	20
PM "	"	"	4	4	24
PM "	"	"	4	4	28
PM "	"	"	4	4	32
PM "	"	"	4	4	36
PM "	"	"	4	4	40
PM "	"	"	4	4	44
PM "	"	"	4	4	48
PM "	"	"	4	4	52
PM "	"	"	4	4	56
PM "	"	"	4	4	60
PM "	"	"	4	4	64
PM "	"	"	4	4	68
PM "	"	"	4	4	72
PM "	"	"	4	4	76
PM "	"	"	4	4	80
PM "	"	"	4	4	84
PM "	"	"	4	4	88
PM "	"	"	4	4	92
PM "	"	"	4	4	96
PM "	"	"	4	4	100

Aug 24

full

cut

Pat intt  
 to Cu Bath



Fast  
Plating Bath  
Efficient

Block 215 Rev Per Minute  
Started no. 10, 20. #1 Eff.

TIME	Amps	Volts	Amps	Total
12:00	72	8	4	—
"	"	5	32	4
1:30	"	8.5	35	36.5
2:30	74	8.3	35	75
3:30	76	8.3	35	108
4:30	78	8.3	34.5	143
5:30	78	8.3	35	178
6:30	"	8.3	35	213
7:30	76	8.5	35	248
8:30	77	8.5	35	283
9:30	78	8.5	35	318
10:30	78	8.5	35	353
11:30	78	8.5	35	388
12:30	78	8.5	35	423
1:30	78	8.5	35	458

Remarks.

Test to try out  
Solution & Electro  
Current

Wash face clean.

$H_2SO_4 = 27.26\%$  solution  
 $CuSO_4 = 28.5\%$  solution  
Content, 10% but only  
analysis

Feed solution into  
pump of electrolytic  
cell.

Fast Plate  
Bath

Wood Bath, 95 Rev. Per Minute  
 Started Not 9:30  
 # 2 Eff.

Time	Sp. gr.	Temp	Volt	Amp	Total
1 PM	1190	85	8	48	
5		88	8.5	52	4
6		98	8.4	55	56
7		99	8.4	55	111
8		102	8.3	55	166
9		94	8.3	55	221
10		90	8.2	55	276

6 hrs

Remarks.  
 To try not rotate  
 and getting current

This disc was a piece of  
 not polished but 950 amp  
 per foot by you

But only 4 had  
 disc cut in two  
 halves to see  
 how water was  
 splashed around to  
 the arrangement of  
 anode chamber  
 conforming to the  
 degree which disc  
 was rotating.

Disc measured 60  
 before put in wood  
 bath, after 6 hrs at  
 55 amp, measured 950 amp

Content of Bath  
 H<sub>2</sub>SO<sub>4</sub> 27.26 cc. N. L. L. L.  
 CuSO<sub>4</sub> 2.24 cc. N. L. L. L.  
 by analysis.

# HEAD Bath

95 R.P.M.

# 3 Expts.

Started for 11/20

Time	Sp. gr.	Temp.	Volt	Amp.	Total	Hours
AM	12.00	69	10	10		
"	"	72	11	55	10	1
"	"	78	12.5	55	65	2
P.M.	"	80	12	55	120	3
"	"	78	12	55	175	4
"	"	78	12	55	230	5
"	"	78	12	55	285	6
"	"	76	12.5	70	340	7
"	"	78	11.5	70	410	8
"	"	80	11	70	480	9
"	"	82	11	70	550	10
"	"	80	11	70	620	11
"	"	88	11.5	70	690	12
"	"	88	11.5	35	725	12 1/2

Remarks

1 hr 10 Amps

thru 55 Amps for

5 hrs. then

raised to 70 Amps

at 55 Amps rising

was very smooth.

Analysis of contents  
of solution

H<sub>2</sub>SO<sub>4</sub> 277.91 gm. per liter  
H<sub>2</sub>SO<sub>4</sub> 27.20 cc " "

Out to strips,

Measured

over all

57/1000

Average 60 Amps/hr



Crook. 157 R. P.M.

Started Nov 11, 20. Ely #4

Time	Sp. Gr.	Temp	Volt	Amp	Total Hrs	Remarks
4:30 PM	12.00	79	12.5	10		
5:10	"	78	11.5	55	10	1
5:20	"	79	11.5	55	65	2
7:10	"	80	11	55	125	3
8:10	"	82	11	55	175	4
9:10	"	80	11	55	230	5
10:10	"	86	11.5	55	284	6
11:10	"	82	11.5	70	340	7
12:10	"	84	11.5	70	410	8
1:10 PM	"	80	11.5	70	480	9
2:10	"	79	11.5	70	550	10
3:10	"	82	11.5	70	620	11
4:10	"	80	11.5	70	690	12
5:10 PM	"	80	11.5	35	725	12 1/2

Cont

725 Amp

Average 60 Amps this

Content of Solution Analysis  
 $\text{CuSO}_4$  277.91 gms for liter  
 $\text{H}_2\text{SO}_4$  27.20 cc " "

Rock 18 P.M.

Expt 5

Started Nov 12, 20.

Time	Sp. Br. Temp	Volt	Amp	Total	Wts	Remarks
PM 12:05	68	9	10			Started at 100 amp
" "	"	"	20	5	1/2	and raised to 100 amp
" "	"	"	30	15	1	even 1/2 hr till
" "	69	8.5	40	30	1 1/2	reached 60 Amps.
" "	70	10	50	50	2	then run for 15 min
" "	74	10	60	75	2 1/2	Amps plus,
" "	76	10.5	60	105	3	
" "	80	10	60	165	4	
" "	77	11	60	225	5	
" "	80	11.5	60	285	6	Added 200 cc
" "	81	10.5	60	345	7	H2SO4 at start.
" "	80	10	60	405	8	before analysis.
" "	80	10	60	465	9	
AM 11:05	80	9.5	60	525	10	
" "	83	9.5	60	585	11	Very good sample
" "	82	9.5	60	645	12	but excessive water.
" "	84	9.5	60	705	13	
" "	85	9.5	60	765	14	

Content of Station by Amalgam.  
 Cup 24 290.03 gms plus water  
 H2SO4 26.79 gms " "

Wood Tank 4-R.M.

Exp #6

Started Nov. 12, 20.

Time	Sp. in Tank	Water Temp	Total Time	Remarks
12:45 PM	68	9	10	
1:30	68	9	20	Started at 15 Sec
5-	"	9	30	then raised to "
5:30	"	69	40	even 1/2 hr till
6-	72	10.	50	60 Amp. then ran
6:20	75	11.	60	to 75 2 1/2
7:04	80	11.5	60	to 80 2 1/2
8	84	10	60	165 4
9	80	11	60	225 5
10	78	11.5	60	285 6
11	82	10.5	60	345 7
12	84	10	60	405 8
1:04	82	10	60	465 9
2-	82	9.5	60	525 10
3-	84	9.5	60	585 11
4-	86	9.5	60	645 12
5-	88	9.5	60	705 13
6-	88	9.5	60	765 14

Content of Solution by Amps.  
 CuSO<sub>4</sub> = 290.83 gms per liter  
 H<sub>2</sub>SO<sub>4</sub> = 26.79 cc "

4:20 P.M. Wood Lake

Nov. 13, 20

Effect 7

Time	Sp. Gr.	Temp.	Volts	Amperes	Total	hrs.	Remarks
10 AM	1.045	68	5.5	18			Started at 10 AM
10:15	"	"	"	30	3	1/4	Raised anode over
10:30	70	9	50	10	1/2	15 minutes, 200 lb	
10:45	70	"	70	22	3/4		Till 70 was recorded
11	72	11.5	70	92	1	1	then 70 a.p. to 757
11:15	75	11.5	70	162	2	2	Amper hours,
11:30	85	11.5	70	232	3	3	from
11:45	94	"	70	302	4	4	changed to 100 lb lead
12	96	11	70	372	5	5	Rubbed scale
1	96	11	70	442	6	6	did not have
2	98	10.5	70	512	7	7	heat down
3	98	11	70	582	8	8	
4	100	11	70	652	9	9	
5	100	10.5	70	722	10	10	
6	100	12	35	757	11	11	cut out

Content of Solution by analysis Roughly pure  
 $\text{CuSO}_4 = 257.49 \text{ g/l}$  for 100 g/l of solution  
 $\text{H}_2\text{SO}_4 = 38.21 \text{ g/l}$  for 100 g/l of solution  
 To increase in  
 $\text{H}_2\text{SO}_4$  content  
 the copper content  
 current to first  
 needed more  $\text{CuSO}_4$   
 content.

Locks 17 R.P.M.

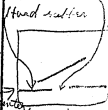
Started Nov 13, 20.

Time	Sp. in Sample	Vol. Sample	Vol. Sample	Settle	Remarks
10:45	1195	68	55	10	Hand rubber
10:50	"	"	55	30	piece with 4" hole
10:55	"	70	9	50	1/2 section made
11--	"	"	"	70	22 3/4 to try get rid of
12	"	72	115	65	87 these on outer
10:4	"	85	11.5	70	157 edges,
2	"	102	11	70	227 East, get well 100.
3	"	102	11	70	297 Current, 100 and
4	"	104	11	70	367 amp comes in
5	"	104	10.5	70	437 Eff # 7
6	"	105	11	70	507
7	"	106	11	70	577
8	"	106	10.5	70	647
9	"	106	12	70	717
9:45 PM	"	106	12	35	752 cut out.

Port of Solen by analysis  
 in Sol = 257.47 gms. per liter  
 H<sub>2</sub>SO<sub>4</sub> = 30.25 cc " "

Bad rough center and  
 now much beads on outer  
 edge

Hand rubber disc  
 with 4" hole in center



lock 10 R.P.M.

Started Nov. 16, 20.

Eggs #9  
Remarks

Time	Sp. in	Sp. out	Vol. in	Vol. out	Total	Sp. in
10 AM	1200	65	9	10	5	1/2
1030	"	"	"	20	5	3/4
1045	"	"	10	30	10	3/4
11	"	67	11	50	17	1
12	"	74	12	70	67	2
1 PM	"	80	12	70	137	3
2	"	85	11	70	207	4
3	"	90	10	70	277	5
4	"	92	11	70	347	6
5	"	92	11	70	417	7
6	"	92	12	70	487	8
7	"	94	12	70	557	9
8	"	100	12	70	627	10
9	"	98	12	70	697	11
10	"	"	"	"	767	"

Very much beads  
at ledge, also  
very loose/secte  
dull to the  
hard rubber with  
4 hole in center  
which covers  
anode.  
Center on Egg #9  
more than #8  
due to slow-sipped  
beddown edge, also  
improvement.

Content of Solution by analysis  
Cu 50.4-28.572 g/liter  
H2SO4-35.76 cc " "

Solution was made  
because of too  
much anode  
surface



Wood Jank 11. R.P.M.

Started Nov. 16, 20

Eys # 10

Time	Sp. pr	Temp	Volts	Am. pr	Total	Am.
3 PM	1200	66	10.	10		
3:30	"	"	"	20	5	1/2
3:45 PM	"	68	10.	30	10	3/4
4	"	"	11.	50	17	
5	"	72	"	70	67	2
6	"	82	12	70	137	3
7	"	84	12	70	207	4
8	"	85	12	70	277	5
9	"	92	12	70	347	6
10	"	74	12	70	418	7
11	"	82	12	70	487	8
12 PM	"	86	12	70	557	9
1 PM	"	88	12	70	627	10
2	"	86	12	70	697	11
					767	

Remarks

Anode chamber  
1/4" from cathode

No bead on  
outer edge,  
but inside showing  
much arcing  
may be due to  
anode too close to  
cathode.

Cont.

Start of Solution by analysis  
CuSO<sub>4</sub> = 28.72 gms per liter  
H<sub>2</sub>SO<sub>4</sub> = 35.16 cc " "

Anode chamber  
Anode angled as  
the photo.

Now subject to follow up to  
try to eliminate beading

Box 2 1/2" x 1 1/2" x 1 1/2"  
front view

Wood Bank  
Started Nov. 17, 20, Exp # 11

Time	Sp	Temp	Vit	Temp	Total	Obs	Remarks
3:15		72	82	10			Richardson
3:30		"	"	30	3		11 Rev. Parvum.
4:30		"	10.	50	10		1/4 Anode chamber
5:30		76	10	50	60		1/2 same angle as the
6:30	12.15	84	10	50	110		1/2 submerged disc
7:30	12.10	82	10	50	160		2 1/2 cathodes 2 1/2" from
8:30		80	10	50	210		3 1/2 anodes 2 inches
9:30		82	10	50	260		1/4 hr at 10 Amps
10:30		86	10	50	310		1/4 " " 30
11:30		88	10	50	360		then locate to 50
12:30		86	10	50	410		8 1/2 Amps and from
1:30		88	10	50	460		9 1/2 to 760 Amps.
2:30		86	10	50	510		10 1/2
3:30	12.10	86	10	50	560		Box 9 x 1 1/2
4:30		88	10	50	610		229 H <sub>2</sub> (2-1)
5:30		86	10	50	660		210 to the water
		86	10	50	710		
					760		

Content of Solution by analysis

Cu 5.104 290.03 gms per liter  
H 2.502 26.79 cc " "



Rock  
Started Nov 17-20

Time	Sp. Dr.	Temp	Volt.	Amps	Total	hrs
3:44		72	85	10		
3:45		"	"	30	3	1/4
3:48		"	10	50	10	1/2
4:20		76	10	50	60	1 1/2
5:20	12:15	80	10	50	110	2 1/2
6:30	12:10	80	10	50	160	3 1/2
7:20		80	10	50	210	4 1/2
8:20		84	10	50	260	5 1/2
9:20		86	10	50	310	6 1/2
10:20		88	10	50	360	7 1/2
11:30		86	10	50	410	8 1/2
12:30		86	10	50	460	9 1/2
13:40		84	10	50	510	10 1/2
2:30	12:10	84	10	50	560	11 1/2
3:30		86	10	50	610	12 1/2
4:30		86	10	50	660	13 1/2
5:30		86	10	50	710	14 1/2
					760	

Egg # 12

Reman. bag

10 Rev. Per. min.

Anode surface

11" round.

Anode 2 1/2" deep.

First 1/2 hr at

10 Amp, boost to

4 1/2 " then 1/2 put

up to 50 and

let run to 760

Amp. hrs.

2 points to 100 mds

OK

Content of 5 slush in beampipe  
Same as No 11.

20 angle

code 3. per

NOVE

Nov 20, 20. Wave Tank

Expt. No 13

R.P.M = 5

Remarks

Time	Sp. Gr.	Temp	Vols. (cups)	Tells. (in)	Remarks
9:15	1205	76	10	10	
9:30		76	10	30	3 4
9:45		78	11	50	10 1/2
10:45		82	11	50	50 1 1/2
11:45		82	11-5	50	110. 2 1/2
12:45	1210	88	11-5	50	160 3 1/2
1:45	1205	86	12	50	210 4 1/2
2:45		86	11-5	50	260 5 1/2
3:45		86	10-5	50	310 6 1/2
4:45		86	11-5	50	360 7 1/2
5:45		92	11-5	50	410 8 1/2
6:45		90	11-5	50	460 9 1/2
7:45		89	11	50	510 10 1/2
8:45		86	11	50	560 11 1/2
9:45		84	11	50	610 12 1/2
10:45		86	11	50	660 13 1/2
11:45		86	11-5	50	710 14 1/2
12:45		86	11-5	50	760 15 1/2

1.10 p.m. current

water off for 3 minutes  
Bubbles, anoxic cond.

1.10 p.m. water off  
1-30 bubbles gone

at 3:45 current water  
off for 4 minutes

4:15 current off for 5 min  
50% spec of air rising

they did not last long

2 Points to be made

OK

Content of Solution by Analysis:

CuSO<sub>4</sub>  
H<sub>2</sub>SO<sub>4</sub>

290.03 gms per liter  
27.95 C.C "

# Crock

Rept No 14

R.P.M. = 5

Time	Sp. gr	Temp	Vol	Ampt	Total	R.P.
9:15	12.05	76	10	10		
9:30		76	10	30	3	$\frac{1}{4}$
9:45		78	11	50	10	$\frac{1}{2}$
10:05		82	11	50	60	$1\frac{1}{2}$
11:05		86	11.5	50	110	$2\frac{1}{2}$
12:05	12.10	86	11.5	50	160	$3\frac{1}{2}$
1:05	12.05	82	12	50	210	$4\frac{1}{2}$
2:05		79	11.5	50	260	$5\frac{1}{2}$
3:05		80	10.5	50	310	$6\frac{1}{2}$
4:05		80	11.5	50	360	$7\frac{1}{2}$
5:05		84	11.5	50	410	$8\frac{1}{2}$
6:05		82	11.5	50	460	$9\frac{1}{2}$
7:05		82	11	50	510	$10\frac{1}{2}$
8:05		84	11	50	560	$11\frac{1}{2}$
9:05		86	11	50	610	$12\frac{1}{2}$
10:05		84	11	50	660	$13\frac{1}{2}$
11:05		84	11.5	50	710	$14\frac{1}{2}$
12:05		85	11.5	50	760	$15\frac{1}{2}$

Remarks.

at 7-10 p.m. current  
went off for 3 minutes  
at 2:45 current went  
off for 4 minutes  
at 1:15 current off for 5 min

2 Prints to be made

For much pitted  
to print,

Content of Solution by Analysis  
same as No 13

Wood tanks 5 R.P.M.  
 Started Nov. 23 20. Exp #15  
 Remarks.

Time	Sp. Gr.	Temp.	Vol.	Wt.	Wt.
1200	76	8.3	16		
1300	"	8.	30	5 1/4	
1330	"	78	8.	50	20 1/2
1430	"	82	11.	50	70 1 1/2
1530	"	86	10.	50	120 3 1/2
1630	"	88	10.5	50	170 3 1/2
1730	"	88	11	50	220 4 1/2
1830	"	86	11	50	270 5 1/2
1930	"	86	11	50	320 6 1/2
2030	"	86	11	50	370 7 1/2
2130	"	86	11	50	420 8 1/2
2230	"	86	11	50	470 9 1/2
2330	12010	88	11	50	520 10 1/2
2430	"	86	11.5	50	570 11 1/2
2530	"	86	11.5	50	620 12 1/2
2630	"	86	11.5	50	670 13 1/2
2730	"	86	11.5	50	720 14 1/2
2830	"	88	11.5	50	770 15 1/2

Too much milk  
 at center H.C.  
 did not pour to point

Analysis of Solution

Bus 504 287.19 gms per liter.  
 72504 27.05 cc " "

Crack  
Started Nov. 22, 20

5 P.M.

Εγφ 16

Remarks

Time	Sp. #	Count	Stk	Weight	Grav	110
2:30	127	76	83	10		
3:30	"	"	8	30	5	1/2
4:30	"	82	11	50	26	1 1/2
5:30	"	86	10	58	120	2 1/2
6:30	"	86	10.5	50	170	3 1/2
7:30	"	86	11	50	220	4 1/2
8:30	"	86	11	50	270	5 1/2
9:30	"	86	11	50	320	6 1/2
10:30	"	86	11	50	370	7 1/2
11:30	"	87	11	50	470	9 1/2
12:30	1220	86	11	50	520	10 1/2
1:30	"	88	11.5	50	570	11 1/2
2:30	"	87	11.5	50	620	12 1/2
3:30	"	87	11.5	50	670	13 1/2
4:30	"	88	11.5	50	720	14 1/2
5:30	"	88	11.5	50	770	15 1/2
					820	

Linen screen  
applied over the  
anode to keep  
back dirt specks

Too much mbs  
at center N.C.  
did not send for prints.

*Amphis* same as Ex/15

Wood Lake 50 RPM  
Exp #17

Nov 23, 20

Time	Sp. gr.	Cent.	Vol.	Wt.	Wt.	Wt.
9:30	1200	74	9.	10		
10:00	"	"	"	20	5	1/2
10:30	"	76	8.	30	15	1
11:00	"	"	"	40	30	1 1/2
11:30	"	74	11.	50	50	2
12:00	"	76	11.	50	100	3
12:30	"	"	"	50	150	4
1:00	"	78	11.	50	200	5
1:30	"	80	11	50	250	6
2:00	"	80	10	50	300	7
2:30	"	80	9	50	350	8
3:00	"	82	10.5	50	400	9
3:30	"	82	10.5	50	450	10
4:00	"	83	10.5	50	500	11
4:30	"	83	11.	50	550	12
5:00	"	82	11.5	50	600	13
5:30	"	82	11.5	50	650	14
6:00	"	83	11.5	50	700	15
6:30	"	82	11.5	50	750	16
7:00	"				800	

Remarks

Became knots  
not out

Water flat at 11:00

Error some miles  
at analysis

Content of each sample  
in 50 y 289.60 gms  
112 50 y 28.00 cc

Nov 23, 20.

Exp # 18

Time	Sp. Gr.	Count	Vol	Temp	Wt
7:30 PM	120	74	9	10	
10.	"	"	"	20	5
10:30	"	76	8.	30	15
"	"	71	10.	40	30
11:30	"	74	11.	50	50
12:30	"	76	11.	50	75
1:30 PM	"	"	"	50	125
2:30	"	78	11	50	175
3:30	"	80	11	50	225
4:30	"	80	10	50	275
5:30	"	80	9	50	325
6:30	"	82	10.5	50	375
7:30	"	82	10.5	50	425
8:30	"	82	10.5	50	475
9:30	"	84	11	50	525
10:30	"	84	11.5	50	575
11:30	"	83	11.5	50	625
12:30	"	84	11.5	50	675
1:30 PM	"	84	11.5	50	725
					775

Remarks

Anode has a thin  
green cover.

Excessive knots  
No 1st

Water Plated Nicks  
N 6

Error in content of  
solution from 1st  
Plate. No good.

Creek

S R. P. M.

Cope # 19.

Time	Sp. g.	km	vd	h	W	h	h	h	h	Remarks.
2:26	1165	78	9	15						
3:0		79	8.5	30	7					
3:30		78	9.5	50	22					
4:30		84	9.5	50	72					
5:30		86	9.5	50	122					
6:30		88	10	50	172					6 o'clock. Winded knots 1/2 disc. forms copper plate
7:30		86	10	50	222					
8:30		86	10	50	272					
9:30		84	10	50	322					
10:00		84	10.5	50	347					

Reason for cutout  
due to poor fishing  
something wrong  
with fish

Electricity says too  
low in retention

Has 04 = 18.9600 p. h. h.  
Lusby = 206.98 p. h. h.



Work Tank

Exp. No 20.

5 P.M.

Time	Sp. G.	Temp	Wt. Amt	Evap	H <sub>2</sub> O
8:30	11.65	78	9	15	
9:00		78	8.5	30	7
9:30		78	9.5	50	22
10:00		84	9.5	50	72
10:30		86	9.5	50	112
11:00		90	10	50	172
11:30		88	10	50	222
12:00		87	10	50	272
12:30		86	10	50	322
1:00		86	10.5	50	347

Remarks.

6 o'clock. Waster Knots off  
dine. porous Copper  
plate -

Solution in C



Rock 5 R.M.

Started Nov 26, 20

Eff #21

Time	Sp. No.	Temp	Vol	Temp	Total	Bar
8 AM	1180	66	8.5	15		
9	"	66	9	30	7	1/2
10	"	68	10	50	22	1
11	"	"	"	50	72	1 1/2
12	"	72	9.5	50	122	2 1/2
1	"	76	9	50	172	3 1/2
2	"	80	9	50	222	4 1/2
3	1190	81	9	50	272	5 1/2
4	"	84	8.5	50	322	6 1/2
5	"	85	8.5	50	372	7 1/2
6	"	85	8.5	50	422	8 1/2
7	1205	86	9	50	472	9 1/2
8	"	84	8.5	50	522	10 1/2
9	"	86	9	50	572	11 1/2
10	"	86	9	50	622	12 1/2
11	"	86	9	50	672	13 1/2
12	"	87	9.5	50	722	14 1/2
1	"	87	9.5	50	772	15

6.0% very fine sand  
plating added  
250 c.c. of sulphuric  
acid to 25 yellow water  
and 100 c.c. of plate

Plating slightly  
better no burning  
solution getting worse

Content of solutions before  
adding 250 c.c. H<sub>2</sub>SO<sub>4</sub> + 12 lbs. for 204

CaSO<sub>4</sub> = 246.92 gms per liter  
22.01 cc

Wood Lake 5 R.P.M.

Started Nov 26 20

Eff. # 22

Time	Sp. R.	Lat.	Vol.	Temp.	Tr. L.	Dist.
3:04	1180	68	8.5	15		
3:22	"	"	9.	30	7	$\frac{1}{2}$
4:00	"	68	10.	50	22	/
5	"	"	10.	50	72	$\frac{1}{2}$
6	"	73	9.5	50	122	$\frac{2}{2}$
7	"	80	9	50	172	$\frac{3}{2}$
8	"	84	9	50	222	$\frac{4}{2}$
9	1190	84	9	50	272	$\frac{5}{2}$
10	"	86	8.5	50	322	$\frac{6}{2}$
11	"	88	8.5	50	372	$\frac{7}{2}$
12	"	87	8.5	50	422	$\frac{8}{2}$
1:04	"	87	9	50	472	$\frac{9}{2}$
2	"	87	8.5	50	522	$\frac{10}{2}$
3	1205	86	9	50	572	$\frac{11}{2}$
4	"	90	9	50	622	$\frac{12}{2}$
5	"	87	9	50	672	$\frac{13}{2}$
6	"	88	9.5	50	722	$\frac{14}{2}$
6:30	"	88	9.5	50	747	$\frac{15}{2}$

6 o'clock very granular  
 Hatching. added 200  
 c.c. phosphoric acid  
 to 25 gallons water  
 and 1 lb. copper sulphate

Solution Zinc 12.  
 # 21 Eff.

Wood Lake S.R.P.A.

Start Nov 29, 20.

Egg # 23

Time	Sp. 2	Sp. 1	Vol.	Wt.	Wt.	Wt.
0	1205	68	7	20		
1	"	72	7.5	40	20	1
2	"	76	8	50	60	2
3	"	84	8.5	50	110	3
4	"	90	8.5	50	160	4
5	"	92	8.0	50	210	5
6	1213	92	7.5	50	260	6
7	"	97	7.5	50	310	7
8	"	95	7.5	50	360	8
9	"	94	8.5	50	410	9
10	"	"	8.5	50	460	10
11	"	"	"	50	510	11
12	"	"	"	50	560	12
13	"	"	"	50	610	13
14	"	86	7.5	50	660	14
15	1214	90	8.5	50	710	15
				50	755	

6-10 pm current off  
for 3 minutes

out.

Content of solution

A = 504 32-98 CC  
B = 1. 299 .16 gms

R.P.M. 53.

Started May 29, 20.

Egg # 24

Remarks

Time	Sp. In	Temp	V	Ampl.	Int.	Rev.
3	1205	80	80	20		
4	1215	82	75	40	20	1
5		86	75	50	60	2
6		89	75	50	110	3
7		92	85	50	160	4
8		94	85	50	210	5
9		"	"	50	260	6
10		"	"	50	310	7
11		"	"	50	360	8
12		84	75	50	410	9
1		90	85	50	460	10
2	1230	90	80	50	510	11
3		91	80	50	560	12
4		92	105	50	610	13
5		92	95	50	650	14
6		"	"	50	710	15

Amore 3 3/4" from California  
 charged to shipper  
 asthma bronch. also  
 53 R.P.M.  
 6.00 curved off for  
 3 minutes.

Shut down truck  
 leaked too much  
 could not tighten  
 truck nuts, fly back  
 12- mid-night

out  
 Surface excellent

Condens. 1/2 column  
 same as 23 Egg

Wood Lake S.R.M.

Started

Nov 30.

Time	Sp. In.	Temp.	✓	Ampl.	Feet	h2o
2	1230	86	8.0	20		
3	"	86	8.0	40	20	1
4	"	87	10.5	50	50	2
5	"	92	9.5	50	110	3
6	1210	98	7.5	50	150	4
7	"	100	7.5	50	210	5
8	1215	98	8	50	260	6
9	"	106	8	50	310	7
10	1220	"	8.0	50	360	8
11	1190	88	8.5	50	410	9
12	"	"	9.	58	460	10
11A	"	86	8.	50	510	11
12	"	88	8.	50	560	12
1	"	100	8	58	610	13
4	"	102	8	58	660	14
5	1200	104	8	58	710	15

Egg # 25

Remarks.

Regular mould 4207C,  
inside 3 1/4" from cat hole

Melba  
2 Prints

Good surface  
Very few limbs  
on back.

Out.

53 R. P.M

Creek.

Started Nov. 30, 20

Exp. # 26

Remarks

240, C, (1-2)

Time	Temp	W	V	W	W	W
6	1210	86	75	20		
7		86	75	40	20	1
8	1215	88	8	50	60	2
9		92	"	50	110	3
10	1220	"	"	50	160	4
11		1190	"	85	50	5
12	"	86	9	50	260	6
1		88	8	50	310	7
2	"	88	8	50	360	8
		90	8	50	410	9
	1210	91	8	50	460	10
		92	8	50	510	11
	"	90	8	50	560	12
	"	90	8	50	610	13
	"	90	8	50	660	14
	"	90	8	50	710	15

Make 2 Pints

Excellent surface  
flecting

out

Cont'd

September 27.

Start at 3.20.

Time	Sp. 1	Comp	Vol	Ant	Vol	Ant
5:30	12.10	98	10.5	100		
5:30	12.10	108	10	100	100	1
4:30	12.05	110	9.5	100	200	2
5:30	119.5	110	10	100	300	3
6:30	12.00	106	10	100	400	4
7:30	12.00	104	10	100	500	5
8:30	119.5	106	10	100	600	6
9:30	119.5	107	10	100	700	7
10:30	119.5	102	10.5	100	800	8
11:30	"	104	11.0	100	900	9
12:30	"	106	10.5	100	1000	10
1:30	"	107	10.5	100	1100	11
2:30	119.5	106	11.0	100	1200	12
3:30	"	106	10.5	100	1300	13
4:30	"	105	10.5	100	1400	14
5:30	119.5	104	11.0	100	1500	15
6:30	"	104	10.5	100	1600	16

Remarks

Steel plate from mounds.  
tube placed there.

added 1/2 pitot tube dist'd

~~10.45 removed knots~~

from under rim.

Hold Joseph

Mix 110 Mins 100

Gravity 1190-1200

1.45 removed knots.

4.45 removed knots

1/2 in of water was added

7:30, 8:30, 9:30, 1:30.

C1555



Experiment #28

Slurlet Dec 4, 20

100 amp hrs

Time	Sp. gr.	Temp.	Volts	Amps	Time	Remarks
11:41	12.05	90	12.5	100		
	12.10	95	12.5	100	100	Discard Disc
	12.10	108	12	100	200	
	11.95	108	12	100	300	
	"	110	11.5	100	400	added 3 liters dist H <sub>2</sub> O. Took off mbe.
	12.00	108	11	100	500	" 3 " " "
	"	105	10	100	600	Took off mbe.
	"	110	10	100	700	" 3 " " "
	11.95	110	10	100	800	End.

Hold Temp to  
100° or above  
Sp. gr 1200.

Spec. # 29

Started Nov. 5 20

L	Sp. 29		Sp. 28		Sp. 27		Remarks
	Sp. 29	Sp. 28	Sp. 27	Sp. 26	Sp. 25	Sp. 24	
2	1200	108	115	125			Run 1250 ft. down
3	1145	112	115	125	125	1	
4	"	116	11	130	255	2	all 4 3 ft. H=0 dist.
5	1200	120	11	130	385	3	
6	"	122	11	130	515	4	See off in bed
7	"	116	11.5	125	640	5	" " " "
8	1205	112	11.5	125	765	6	Cont.

11.520 1200 ft. Dr.

Section Cont. came  
no E. 1/2 #28 E. 1/2  
are still 1250 ft. Dr.  
at top of it.

Circles

Paper # 30

Dec 6, 20,

	Sp. G.	Wt	Vol	Wt	Gold	Wt	Remarks
1230	12.15	79	12	95			Edge painted
130		96	11.5	116	95	1	with gilsonite to
230	12.40	114	12	130	211	2	eliminate nubs.
230	"	110	8	125	341	3	
430	12.50	111	11	125	466	4	430 out for an hr &
230	"	110	11.5	125	591	5	remove karb. nubs
430		110	12	130	716	6	paint edge with
730		110	11.5	130	846	7	gilsonite <u>Out</u>

No-Good  
Still beaded  
gilsonite not heavy  
enough around the  
sharp edge of disc.

Content of Solution  
CuSO<sub>4</sub> = 27.7 / 12 gms per liter.  
H<sub>2</sub>SO<sub>4</sub> = 27.51 " " "

added 281 cc H<sub>2</sub>SO<sub>4</sub> } 25 g/l  
2 1/2 lbs CuSO<sub>4</sub> } 25 g/l  
to fetch sol up to normal.

Crab

Paper # 31

Dec 7, 20,

Time	Sp. Wt.	Temp	Vol.	Wt.	Wt.	Wt.	Remarks
		82	9	78			To eliminate water
							Impedance
pm	12.15	100	12	124	78	1	added pitcher distilled water
	12.05	118	12.5	135	202	2	
	12.15	128	12.5	145	337	3	added pitcher distilled water
		116	13	145	482	4	
	12.00	112	12.5	140	627	5	767 + 73
		116	12.5	145	767	6	Took out dish to remove
30		118	12.5	1	840	7	Amber sample. Out.

Content of pot same as  
E/p # 31

1145




Dec 9-20

Exp # 33

Time	Sp. gr.	Leads	Volts	Amperes	Wind (mph)
12		98	13	120	
1 pm	12.0	132	12	145	130
2		118	12	145	275
3		118	12	145	420

Remarks

Soft Rubber ring  
around edge of disc,  
plotted rubber. 

Out:



out for 5 minutes at 1. pm  
to Cool. Filament.

M.B. Hay to of trees  
all around rubber.

Baffle to stop wind  
1/2 from disc

Dec. 10, 28

Drack


16 R.P.M.


Expos. 34

Time	Sp. gr.	Temp.	Vol.	Anti.	Chl.	Time
10	1195	80	13	110		
11		100	13	125	110	1
12	1185	114	13	134	235	2
14		122	13	135	369	

Remarks

Had to see if mite  
occurs more as a bead  
with slower speed on  
rotator 16 R.P.M.

53 R.P.M. Beads sometimes  
like form   
as sketch.

16 R.P.M. Beads  
→ 

N.G. very much  
beads

Baffle 1/2" from disc.

Dec. 10,

Li	Sp. %	Temp	Vel <sup>5</sup>	Angle	Field	Time	Remarks
100	1200	90	14	12.5			
50		104	12.5	130	12.5	1	
51.5	1200	74	14	57	12.5	1.5	
61.5		77	14	50	54	1	
71.5	1200	78	14.5	30	104	2	
81.5		78	14	30	134	3	

Experiment # 35

R. P. M. = 53.

Remarks

mubs Eye

check on mubs

Some mould as above

Except under chamber

6" circular, to

try to eliminate

mubs, or trees,

note how mubs are

retarded by small

mold patches.

Excellent surface

quite some mubs.

about 1/8" above

disc.



Baffle 1/2" from disc



Block, Effs # 36  
Nov. 11, 20

Time	Temp	Temp	Temp	Temp	Temp	Temp
12:05	70	13.	80			
1:00	90	13.	90	80	1	
1:10	110	13.1	87	170	2	
1:15	120	13.5	82	252	3	

Remarks

Duplicate of #35  
Effs and plate  
increased to 8'

Swirl mark in  
center due to  
what look like sol.  
had gotten back of  
label in the in plate  
operation



Excellent surface  
Nubs about same  
as #35 Effs

Baffle 1/2" from face.

Dec 11 20

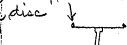
Time	Sp	Scup	W. 100'	Depth	Side	W. 100'
3:45	1205	90	115	70		
4:15		110	15	76	70	1
4:45		108	15	66	146	2
5:15		108	15	68	212	3

Egg 37

cube Egg.  
Remarks

Depth of # 36  
Excellent cathode  
2' from anodes  
no rubber to stop  
swirl at cathode  
out.

Excellent surface  
muds very much  
rounded 1/2" above



Note on stage  
Gold not inside anode  
If I raised anode surface  
would go beyond stage  
carrying dirt off  
note of anode

Mr Edison says don't  
run any more except  
fully time about 800 Amp  
when wanted to strip.

Cleaned both  
solutions at bottom  
of anodes stage

Dec. 14, 20.

Exp. 38

Time	Height	Volt	Amps	Scale	Remarks
12:23	102	9.5	100		
12:03	98	9.5	100	100	1
12:03	103	10	100	200	2
"	104	10	100	300	3

Remarks.  
 1 1/2" anode surface  
 Rubber disc 7" hole  
 in upper cathode  
 2 2" for home  
 3  
 4  
 5 Rubber & iron cathode  
 6 surface to act as a  
 swirl breaker  
 7  
 8 Run to about 200 psi  
 but cut out 300  
 Amps



Run and run by  
 no trace but slightly  
 more high around edge.

Baffle 3/4" from disc.  
 300 turned off by  
 hot anode.

Contact by Amalgam  
 CuSO<sub>4</sub> 207.54 gm per liter  
 H<sub>2</sub>SO<sub>4</sub> 29.50 cc " "  
 Consist of 17 gallon lot.

Added 30% CuSO<sub>4</sub> To make standard  
 585 cc H<sub>2</sub>SO<sub>4</sub> solution which produce  
 best Results.

Nov. 14, 20

Time	Sp. gr.	Temp	Vol	Wt	Wt	Wt
30	12.05	94	9.5	100		
30		114	10	100	100	1
30		100	10.5	100	200	2
30		102	10.5	100	300	3
30		100	10	100	400	4
30		104	10	100	500	5
30		104	10	100	600	6

Wt 2" from anode

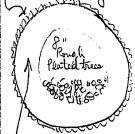
gas through 1/8" by  
Rt anode

Eys 39

duplicate of  
Eys #38 hole  
the rubber increase  
to 8"

Baffle 3/4" from dia.

Beads on edge 1/8"



very smooth plate

finished to 16/1000

# Dec. 15, 20.

Sp. #	Temp.	Volt	Amper.	Time	Remarks
1200	100	11.5	100		
"	110	11.5	100	100	
"	108	12.5	100	200	
"	106	11.5	100	300	
"	110	11.5	100	400	
"	114	11.5	100	500	
"	110	11.0	100	600	

Exp # 40

Remarks.

duplicate of # 39 Exp  
except Cathode  $3\frac{1}{2}$ "  
from anode  
8" hole in Rubber disc

Baffle  $3\frac{1}{2}$ " from disc

Reeds on edge  $3\frac{1}{16}$ "



gas stream off  
light on side

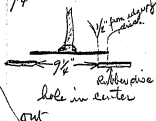
Granular plate  
finished to 16/1000

Dec 16, 20,

Expt 41

Time	Temp	Volts	Cur.	Time	Time
12:00	104	9.5	100		
"	105	9.5	100	100	1
"	100	10	100	200	2
"	102	12	100	300	3
"	104	11.5	100	400	4
"	106	11.5	100	500	5
"	100	12.5	100	600	6

Remarks  
Rubber disc  
has hole as sketch  
9/4"



Cellode 3 1/4" forward



gas thrown off  
by rot anode

Baffle 3/8" from disc  
4-30 curved off for 2 minutes  
while solution pump broke  
was handled  
finished too 27/1000

Dec. 17, 20.

Cyper #42

Sp. Fr.	Temp.	Vol.	Ant.	Vol.	Time	Remarks
1190	92	14	100			Replastic of
"	106	15	100	100	1	#41 Exp. Except
"	118	14.5	100	200	2	mode 2' from disc.
"	106	14	100	300	3	Baffle $\frac{3}{8}$ " from plate.
"	108	14	100	400	4	$\frac{9}{16}$ " hole in Rubber disc.
1195	105	13	100	500	5	
"	105	13	100	600	6	Would have to lower

baffle if run to 800  
amps. Facet beads

Very granular plate  
milk around edge  
 $\frac{3}{8}$ " high



Finished to 34/1000

Epp #43

Dec. 17, 20.

Epp No	Sample	Vols Am.	Total	Hours	Remarks
12.57	100	"	100		No Rubber disc.
12.57	102	14.5	100	1	in brock
12.57	106	13.5	100	2.00	disc. 3 1/8" from axle
"	110	13.5	100	3.00	Run to 600 rpm
"	110	14	100	4.00	
"	116	14	100	5.00	
"	124	14	100	6.00	

Made this disc. while waiting for new rubber disc. also wanted to see how trees are compared to #39 to 42 Epp.

Content of Solutions by Analysis  
 $\text{CuSO}_4 = 252.60 \text{ gms per liter.}$   
 $\text{H}_2\text{SO}_4 = 33.41 \text{ " " "}$

added 6.84 liters  $\text{H}_2\text{O}$  } to make standard  
 " 9.79 lbs  $\text{CuSO}_4$  } solution.  
 in. added 1 piches distilled water.



Dec. 18, 20

Eys #44

Sp. gr.	Temp	Volts	Amperes	Watts	Hours
1227	120	12	100		
"	110	14	100	100	1
"	116	14	120	2	2
1205	100	"	100	3	3
"	104	"	100	4	4
"	106	"	100	5	5
"	"	"	100	6	6

Remarks.

Rubber disc  $9\frac{1}{4}$ "  
hole, anode is  
 $3\frac{3}{4}$ " away from cathode

Run to 600 Amperes

Caliper after turning  
and facing 28/1000

Dec 20, 20

Eys #45

Sp	Temp	W. S. S.	Depth	Time	Hours
1205	100	12.5	100		
"	110	12	100	100	1
1205	100	12	100	200	2
"	108	12	100	300	3
12-10	110	12	100	400	4
1205	112	11.5	100	500	5
"	104	11.5	100	600	6

Remarks

Duplicate of #  
44 Eys except  
run to 830 Amps  
and finish up.

Out

No Good  
Something wrong  
Crystallized bottom of rock

Dec. 21, 20.

g.g.	comp	vol	amp	tdis	time
1210	94	8	70		
"	104	8	70	70	1
1215	"	104	8.5	70	140 2

Remarks

cut out n g  
account of the  
overflow not enough  
solution above disc

Solution only 1" above disc



The pencil carried the  
solution as far as it  
would throw it to the  
edge of the disc.



END

Dec 21, 20.

Expt 47

Sp. Gr.	Temp.	Vols.	Ampl.	Notes	Time
1210	164	9	100		
"	"	95	100	100	1
"	"	10.5	100	200	2
"	"	10.8	100	300	3

Remarks.

Duplicate of #46  
because of too  
much trees  
May be due to  
pollution being more  
caused by crystals  
in cracked blocked.

Cut out after 3 hrs,



No Good

# Remarks #48

Crystals must crystallize on anode at 90° F. because after solution of fixed first 48 hrs. testing was not yet OK. Took sample after 122 hrs. had been heated for 120 hrs. when disc was through its run, and the anode showed an increase of 20 gms per liter B.V. when it should of just been the reverse.

3 previous upper mounts cause for going wrong solution trouble due to crystallizing at anode, then jar cracked due to expansion when solution became hotter. did not take crystal out of cracked flask with new acid was being used so that rapid and not enough.

Dec. 22, 20.

Sp. Gr.	Temp	Volts	Amperes	Total	Hours
122.0	98	95	100		
"	112	"	100	100	1
120.5	122	10	100	200	2
"	112	12	100	300	3
"	110	12	100	400	4
"	108	12	100	500	5
"	110	10.5	100	600	6
"	106	10.5	100	700	7
"	106	11	100	800	8

Expert #48.

Remarks.  
Rubber disc 9 1/2" dia  
anode in 3 1/4" bore cathode  
To run 800 amperes  
thin strips for  
observation and  
caliper. 10/1000  
M.B. account of pit marks  
out.

Surface some  
frees, also edges  
very many pit holes  
in disc after turning.

Solution standard before start  
of this disc.

Analysis before start 25.248 gms B.V. per liter  
25.33 cc H<sub>2</sub>O<sub>2</sub> "  
added to standardize 3.7 lb B.V.  
22.8 cc H<sub>2</sub>SO<sub>4</sub>

Dec 23, 20.

Expt #49

me	Sp. Dr	Temp	Volt	Amp	Total	Remarks
24	1210	102	10.	100		Replicated
24	"	116	10.	100	100	#48 Expts because
25	"	110	11	100	200	plating did not
26	"	112	11	100	300	show up OK.
27	"	106	11.5	100	400	
28	"	102	11-	100	500	
29	"	102	10.5	100	600	
30	"	112	10-	100	700	
30	"	118	10	100	800	out

9 pit holes in  
disc after turning  
one to metal

Analysis of Plating Bath before starting  
#49 Expt.

305.08 gms BV. per liter  
28.24 " H<sub>2</sub>SO<sub>4</sub>.  
added to make standard  
2.71 cc. H<sub>2</sub>O  
183. cc. H<sub>2</sub>SO<sub>4</sub>.  
makes.

Dec. 25 20.

Expt #50

Sp. R.	Temp.	Vol.	Dist.	Time	Rate
43	12.25	104	10.5	100	
45	12.10	116	11.5	100	100
45	"	120	11	100	200

Added 1 pitcher water

but not acet crystallized  
on anode plate.  
Solution crystallizes  
when cooled by  
coil in solution.

Will change to a  
cooling coil which  
solution will run  
through same as it  
does at regular feeding  
baths.

[ITEM(S) FOUND IN BOOK]

11/19/20 C. S. Archer

33.95 c.c. H<sub>2</sub>SO<sub>4</sub> per liter

288.27 gms B.V. " " "

Add 19 lbs. B.V.

make up to 29<sup>3</sup>/<sub>4</sub> liters

Total -

+ Nitrate

Add 29<sup>3</sup>/<sub>4</sub> liters of the

140 liters that you have

Nov. 23, 1920

Mr. Archer

Report on Special Sample

Car Electrolyte

H<sub>2</sub>SO<sub>4</sub> — 27.05 c.c./liter

Car SO<sub>4</sub> — 287.19 gm/liter

Living Adelsch



[ITEM(S) FOUND IN BOOK]

Nov 23, 1920

Mr. Archer:

Report on special sample  
of Cu Electrolyte.

$H_2SO_4$  — 25.60 c.c./liter

$CuSO_4$  — 304.44 gm./liter

Living Adelsch

34 gallons

$$\begin{array}{r} 4 \overline{) 136} \\ \underline{16} \end{array}$$

$$\begin{array}{r} 11 \\ 4 \overline{) 54.60} \\ \underline{44} \phantom{00} \\ 10 \phantom{00} \\ \underline{8} \phantom{00} \\ 20 \phantom{00} \\ \underline{16} \phantom{00} \\ 40 \phantom{00} \\ \underline{40} \phantom{00} \\ 0 \end{array}$$

22 gallons —

making that to 34 gallons  
including 12 more lbs B.V.

$H_2SO_4$  = 34.08 c.c. per liter  
B.V. = 286.00 grams " "

Y. Hettler,  
Nov. 24, 20.

[ITEM(S) FOUND IN BOOK]

Mr. Archer

Nov. 26, 20

Sulfuric Acid per liter 18.96 c.c. per liter

Blue titrated " " 26.98 gms " "

F. Hilly Jr.

Started 11:20 am,

with  $3\frac{3}{4}$  gallon solution in crock

add  $\frac{1}{2}$  lbs B.V.  
600 cc  $H_2SO_4$

add  $9\frac{1}{2}$  lbs B.V.  
" 600 c.c.  $H_2SO_4$

F. Hilly Jr.

25 gallon lot

600 cc  $H_2SO_4$

24  
25 600  
50

[ITEM(S) FOUND IN BOOK]

Nov. 26, 1920  
 Mrs. Archer  
 Report on special  
 sample Car Electrolyte  
 $H_2SO_4$  — 22.01 c.c./liter  
 $CuSO_4$  — 246.92 gm./liter

Henry J. ...

$$\frac{24.83}{1000.6} = \frac{x}{1000.6}$$

$$x = 24.83 \times 100.6$$

$$1000$$

$$17.02483$$

$$\frac{1006}{14898}$$

$$248300$$

$$24.97898$$

$$24.978 \text{ c.c./liter}$$

30  
 30 c.c.  
 30

[ITEM(S) FOUND IN BOOK]

B.V. per liter = 246.46 gms  
H<sub>2</sub>Oy " " = 18.83 c.c.

Irving Adelson

[ITEM(S) FOUND IN BOOK]

Walter Archer

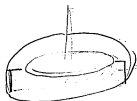
Try this Crack again.



But put a wooden piece  
Clear across the crack to  
stop the solution from  
being carried around by  
the disc. This makes  
the



Mar 27, 20.



piece maple  $\frac{1}{4}$  thick  
reaching clear across  
crack & of such a height  
from the bottom that face  
of the disc just clears  
it by  $\frac{1}{16}$  of an inch.

Ed

(ITEM(S) FOUND IN BOOK)

Mr Elson,

Nov. 27, 20.

I have three discs made from foot plating, two prints have been made of two of them the other print will be finished to day. Clearly says.

The two prints showed defects after test by Caldwell and I asked him to have Jacobus to see if defect could be traced back to disc I made the working mould from. This # 50210 was discarded Caldwell says and should not been put through the circuit.

Since these above experiments samples taken to the chemist for content of solution, would be split did not give favorable results, which is due to the calculation which chemist made an error. I gave Skittles a check sample yesterday and found content too low in acid and copper salts and gradually raising till proper content is reached which produces best result.

As to angle of anode chamber the copper anode does not feed itself down, which I judge is somewhat due to the irregular form of copper sheet, sharp edges catch in drilled hole partition.

Fred Ott has now sketched to stop swirl of solution and will fix it in the bath.

H. H. Gieseler.

Copy

[ITEM(S) FOUND IN BOOK]

Archer

No Report from you  
on progress of Rapid  
plating. I must get ahead  
on this. Did you make  
a good one from a good  
female & have prints made  
want to see that surface  
is good. Then I will  
have 2 more baths  
made if present one works  
OK — Does the Copper  
eat feed down the  
angle OK or does it  
stick — S

Nov. 29, 1920.

Mr. Archer:

Report on special sample  
Cu Electrolyte  
H<sub>2</sub>SO<sub>4</sub> — 27.98 c.c. platin  
CuSO<sub>4</sub> — 276.519 m. platin

P. Adelson

453

27.65

5.000 276.87

5.000 c.c. 299.16

32.98 c.c. H<sub>2</sub>SO<sub>4</sub>

299.16 gms B.V.

[ITEM(S) FOUND IN BOOK]

1326	6,131
257	50.3
<hr/>	<hr/>
9282	18393
6630	306550
2652	
<hr/>	<hr/>
34,078.2	308,3893

34,08 Q.C. H-804 for etc.

308.39 gms B.V. " "

Nov 30, 20



[ITEM(S) FOUND IN BOOK]

Dec. 7, 1920

B. V. per liter = 288.77 grams

Sulfuric acid per liter = 30.37 c.c.

pendant Sol

Test taken after Apr. 27/26

225 / 750 / 3  
65  
7

Add 3.8 c.c.  $H_2SO_4$  per liter  
Add 50 c.c. Water per liter

Add 456 c.c.  $H_2SO_4$   
Add 6 liters Water

[ITEM(S) FOUND IN BOOK]

Dec. 4, 1920

Mr. Archer:

Report on special  
sample Cu Electrolyte

$H_2SO_4$  — 28.44 c.c./liter

$CuSO_4$  — 274.67 gm./liter

Living Adelsch.

Waste of  $CuSO_4$

"  $H_2SO_4$  [unclear] Dec. 20,

add 193 c.c.  $H_2SO_4$

" 3 lb. 2 oz. of B.V.

to Hilly.

Dec. 20, 1920

Dec. 6, 1920

Mr. Archer:

Report of special  
sample Cu Electrolyte

$H_2SO_4$  — 27.51 c.c./liter

$CuSO_4$  — 277.12 gm./liter

Living Adelsch.

Add { 281 c.c.  $H_2SO_4$  } 25 gal. lot  
{ 2 1/2 lbs  $CuSO_4$  }

[ITEM(S) FOUND IN BOOK]

Add 120 cc.  $H_2SO_4$   
" 360 grams  $CuSO_4$

---

[ITEM(S) FOUND IN BOOK]

Archer -

Eye #32  
Rec'd 18, 20

Have Mc Mullen  
get a discard or tracked.  
Way record from Werner  
Have it grafted, and  
Cooped by Dempsey  
until ready to go in the  
General bath. At this  
point take it + put it  
in the fast bath at  
60 ampere rate + keep  
bath as cool as you  
can. When it is  
about 75/1000 thick  
take out + have MCM G  
strip it + used + examine

If you fail by reason  
of too hot bath, Run  
solution thru 2 or  
3 times faster + put  
as much water thru  
Cooling Coil as is  
possible

Edison

[ITEM(S) FOUND IN BOOK]

Dec. 8/1920

Mr. Archer

Report on special  
sample Cu Electrolyte

$H_2SO_4$  - 31.62 cc./liter

$CuSO_4$  - 288.77 gm./liter

Living Adelsch

Add 4.1 liter Water

" 2.5 lb.  $CuSO_4$

add 1.6 lb. B.V.

2490 L.C. Water

into 15 gallon lot.

check before Exp 38 was made

Dec. 14/1920

Mr. Archer

Report on special sample  
Cu Electrolyte

$H_2SO_4$  - 29.50 c.c./liter

$CuSO_4$  - 287.54 gm./liter

Living Adelsch

17 gal.

Add 58.5 c.c.  $H_2SO_4$  & as on

3.03  $CuSO_4$  Dec. 3/1920

[ITEM(S) FOUND IN BOOK]

Mr. Archer - Dec. 18, 1920.

Report on special  
sample Cu Electrolyte.

$H_2SO_4$  — 31.23 c.c. / liter  
 $CuSO_4$  — 286.93 gm / liter

Irving Adelsch.

{ Add 1.94 liters Water  
 { Add 4 lbs and 7 oz  $CuSO_4$

→ as on Dec. 2, 1920  
 17 gal. 68 liters

Amplifier because amperes were low  
 due to line voltage low.

Dec. 18, 1920.

Mr. Archer -

Report on special  
sample Cu Electrolyte.

$H_2SO_4$  — 33.4 c.c. / liter  
 $CuSO_4$  — 252.60 gm / liter

Irving Adelsch.

{ Add 6.84 liters Water  
 { Add 9.79 lbs.  $CuSO_4$

→ as on Dec. 2, 1920 - 17 gals.

[ITEM(S) FOUND IN BOOK]

Mr. Archer

12/22/20

Analysis = 252.48 grams B.V. per liter  
257.33 c.c. H<sub>2</sub>SO<sub>4</sub> " "

Therefore add 5 1/2 lbs B.V. &  
340 c.c. H<sub>2</sub>SO<sub>4</sub>

to 17 gallons to make the vol. same  
as a Dec 2, 1920.

3.7 lbs B.V. add to 12 gallon lot  
228 cc H<sub>2</sub>SO<sub>4</sub>

Stetley

Mr. Archer

2021/12/20  
12/23/20

305.08 grams B.V. per liter  
28.24 c.c. H<sub>2</sub>SO<sub>4</sub> per liter

add 2,711 c.c. H<sub>2</sub>O.  
183. c.c. H<sub>2</sub>SO<sub>4</sub>.

Epent #19

Stetley Jr.

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Plating Experiments  
Notebook, N-20-06-12.1**

This notebook was used during June-August 1920 by Edison, Walter N. Archer, Frank Detlef, Jr., Howard F. Redford, and possibly other experimenters. The entries pertain to the plating processes involved in the manufacture of disc records. The early entries by Edison focus on attempts to copperplate with anodes made from nickel-faced copper molds no longer needed for production. Following these entries are tabular reports of various molds plated in "Bath 8" in June and July with information on the date and time, specific gravity, volts, amps, and other conditions during plating. There are occasional notes, suggestions, and instructions by Edison. The second part of the book relates to a series of experiments conducted by Archer in July and August in which rubber varnish was used for protection against copper depositing on the backs of the molds. There are occasional notations by experimenter Paul B. Kasakove, which he added to the book during the 1960s while working as an interpreter at the Edison National Historic Site. The front cover is labeled "June 12-20-To July 31-20-" and is marked "No 8." The pages are unnumbered. Approximately 160 pages have been used.



States on opposite page started  
to Crystallize ~~nothing~~ starting  
where it ~~started~~ to crystallize

The front Nickel actually has  
all disappeared. Eaten up  
entirely probably gone into  
fine & some dissolved -

Bath 8



Nickel basket not plated filled with  
Copper pieces cut from working  
wounds, bent & twisted so all  
porous - No cloth filter -

SG	Volt	Amp	Temp	Total amp
1170	9.5	23	82	23
1170	9.5	25	82	48
1170	9.5	25	80	73
1170	9.5	25	80	98
1170	9.5	27	83	125
1170	9.5	27	83	152
1170	9.5	27	83	179
1170	9.5	28	83	207
1170	9.5	28	81	235
1170	9.5	27	85	262
1170	9.5	27	84	289
1170	9.5	27	84	316
1170	9.5	28	82	344
1170	9.5	28	82	372
1170	9.5	28	82	400

Stack to bottom

Sunday 4pm Indus bath warm a  
Varnish - Blistered up at back  $\frac{3}{4}$  dia  
+  $\frac{1}{4}$ " outwards. 3 blisters like  
this - Varnish must be made  
to stand higher temp, Cu getting  
in behind Van + copper plating  
underneath. Very bad

Ample basket side broken off  
2:30 PM

Facing the disc -

Investigate if Perforated face  
was really Nickel

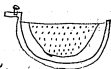
Basket with face gone is  
functioning OK without  
it - its probably only  
the back is necessary  
the other part of basket  
could be an insulator

## Bath 8

Time	Volts	Temp	Total Amp
4:00	1170	9.5	27 82 427
5:00	1170	9.5	27 81 454
6:00	1170	9.5	27 84 481
7:00	1170	9.5	27 82 508
8:00	1170	9.5	27 82 535
9:00	1170	9.5	27 82 562
10:00	1175	9.5	27 81 589
11:00	1175	9.5	26 81 615
12:00	1175	9.5	26 81 641
1:00	1175	9.5	28 82 669

Taken Out

6:46 Amp for 24 hours  
at about 27 amp/hr  
Out: 346 P.M.



1st Disc from basket Amch  
Chamber filled from -25-

168 Beth 1st Disc  
from Amch

TIME	Slw	Folts	Comp	Temp	Atal
10:45	1170	9-5	17 3/4	80	18
11:15	1170	9-5	18	80	36
11:45	1170	9-5	18	80	54
12:15	1170	9-5	18 1/2	80	72
12:45	1170	9-5	18 1/2	82	91
1:15	1170	9-5	18 1/2	82	109
1:45	1170	9-5	19	82	128
2:15	1170	9-5	19	81	147
2:45	1170	9-5	19	83	167
3:15	1170	9-5	19	83	186
3:45	1170	9-5	19	83	205
4:15	1170	9-5	19	83	224
4:45	1170	9-5	19	81	243
5:15	1170	9-5	19	81	262
5:45	1170	9-5	19	81	281
6:15	1170	9-5	19	81	300
6:45	1170	9-5	19	81	319
7:15	1170	9-5	18	81	338
7:45	1170	9-5	17	81	356
8:15	1170	9-5	18	80	374
8:45	1170	9-5	18	80	382
9:00	1170	9-5	18	80	400
9:00	1170	9-5	18	80	418

over

Old 8 Bath Net Size in  
from  
cand

JUNE

36 P.M.	Shi	Volts	amp	Temp	Total
00	1170	9-5	18	83	436
00	1170	9-5	18	83	454
00	1170	9-5	18	80	472
00	1170	9-5	18	80	490
00	1170	9-5	18	83	508
00	1170	9-5	18	83	526
00	1170	9-5	18	83	544
00	1170	9-5	18	83	562
00	1170	9-5	18	83	580
00	1170	9-5	18	8	598
00	June 24				
00	1170	9-5	18	81	616
00	1170	9-5	17	80	633
00	1170	9-5	17	81	650
00	1170	9-5	17	81	667
00	1170	9-5	18	81	685
00	1170	9-5	18	81	703
00	1170	9-5	18	81	721
00	1170	9-5	18	81	739
00	1170	9-5	18 1/2	83	757
00	1170	9-5	18 1/2	83	775
00	1170	9-5	18 1/2	83	793
00	1170	9-5	18	83	801
00	1170	9-5	18	83	819
00	1170	9-5	18	83	837

Me 8-Bath let Disc Out  
from small

TIME  
27  
30  
30

Sta	Volts	Amps	Amps	Total
1170	9-5	18 1/2	83	855
1170	9-5	18	83	864
		Out		

48 1/2 hours  
18 Amp Reg  
from

Bath No 8. 2<sup>nd</sup> Sac in  
started same amt

ONE 21	Shw	Tolls	Camp	Temp	Total
0	1170	9-5	18	83	
00	1170	9-5	18	83	18
00	1170	9-5	18	83	86
00	1170	9-5	18	83	54
00	1170	9-5	18	81	72
00	1170	9-5	18	81	90
00	1170	9-5	18	81	108
00	1170	9-5	17	86	125
M	June 25				
00	1170	9-5	17K	80	142
00	1170	9-5	17K	80	160
00	1170	9-5	16	81	176
00	1170	9-5	16	81	192
00	1170	9-5	16	81	208
00	1170	9-5	16	81	224
00	1170	9-5	14K	82	241
00	1170	9-5	16K	82	258
00	1170	9-5	17	81	275
00	1170	9-5	17	81	292
00	1170	9-5	16.5	83	308
00	1170	9-5	17	83	325
00	1175	9-5	16	80	341
00	1175	9-5	16	83	357
00	1175	9-5	15.5	81	373
00	1150	9-5	15.5	82	388

## #8 Bath

2<sup>nd</sup> disc.  
disc. script and/or

23.20.	Sp. No.	Volts	Amper.	Temp.	Total
22	1165	9.5	16.5	78	405
21	1165	9.5	16	80	421
20	1165	9.5	16.5	80	437
19	1165	9.5	16.5	80	454
18	1165	9.5	16.5	80	470
17	1165	9.5	16.5	80	487
16	1165	9.5	16	80	503
15	1165	9.5	16	80	519
14	June 29				
13	1165	9.5	16	81	535
12	1165	9.5	16	81	551
11	1165	9.5	16	82	567
10	1165	9.5	16	82	583
9	1165	9.5	16	81	603
8	1165	9.5	16	81	619
7	1165	9.5	16	82	635
6	1165	9.5	16	82	651
5	1165	9.5	16.5	87	667
4	1165	9.5	16.5	86	684
3	1165	10.	17	90	701
2	1165	10.	17	86	718
1	1165	10.	16	90	730
0	1165	10.	16.5	90	746
	1165	10.	16.5	90	763
	1165	10	16	88	779

Revised 1/2 v. at 1915  
AM

575) 962.88 (16.7  
 575  
 3870  
 3870  
 4200  
 4025

#8 Bath #2 disc  
 seisc. scrup anode.  
 Start June 27, 201 5 P.M.  
 Finish " 30, 20 3.30 P.M.  
 Total Amp = 962  
 Average " = 16.7  
 Total hours = 57½

Left in by mistake

#8 Bath

2nd disc.  
 seisc. scrup anode

Time	Sp. Dr.	Volta	Amp	Temp	Total
5:00	1165	10	16.5	87	795
5:10	1165	10	16.5	85	812
5:20	1165	10	16.5	85	828
5:30	1165	10	17	85	845
5:40	1165	10	17	85	862
5:50	1165	10	17	85	879
6:00	1165	10	17.5	85	896
6:10	1165	10	17.5	83	914
6:20	June 30.				
6:30	1165	16	16	82	930
6:40	1165	10	16	82	946
6:50	1165	10	16	82	962

Out  
 Left in by  
 mistake



Reg. Chrap - feed made  
partition, Wash Rag

No 8 1st Line in  
Bath

Time	Sh	Orth	Imp	Imp	Net
100	1165	9-5	16	80	
200	1165	9-5	16	80	16
	70	4-4	16		
100	1165	9-5	16	80	32
100	1165	9-5	16	80	48
100	1165	9-5	18	83	66
100	1165	9-5	18	83	84
100	1165	9-5	18	83	102
100	1165	9-5	18	83	120
100	1165	9-5	18	83	138
100	1165	9-5	17 1/2	84	155
200	1165	9-5	18	84	173
100	1165	9-5	18	84	191
100	1165	9-5	18	82	209
100	1165	9-5	17	82	226
100	1165	9-5	17	82	243
200	1165	9-5	17	84	260
	1165	9-5	17-5	83	277
	1165	9-5	17-5	83	295
	1165	9-5	17-5	83	312
	1165	9-5	17-5	82	330
	1165	9-5	17-5	82	347
	1165	9-5	17-5	81	365
	1165	9-5	17-5	81	382
	1165	9-5	17-5	81	400

Not a number

Cleaned up .045  
 Outside Caliper = .053  
 Inside = .063

45) 753 (16.7  
 $\frac{303}{450}$   
 $\frac{330}{315}$

Run total to 750 Amps.  
 # 8 Bath After cleaning tank  
 free from grease & oil.  
 # 1st disc.

Start July 3, 20, 11 P.M.  
 Finish " 5, 20, 8 P.M.  
 Total Amps 753  
 " hours 45  
 Average Amp 16.7

# 8 Bath 1st disc in

Time	Shw	Cotts	Amps	Temp	Total	
11:00	1165	9-5	17	81	417	not a not on
12:00	1165	9-5	16	81	433	
1:00	July 5	20				
2:00	1165	9-5	16	81	449	
3:00	1165	9-5	16 1/2	81	465	
4:00	1165	9-5	16 1/2	81	482	
5:00	1165	9-5	16	81	498	
6:00	1165	9-5	16	81	514	
7:00	1165	9-5	15 1/2	81	529	
8:00	1165	9-5	15 1/2	81	545	
9:00	1165	9-5	15 1/2	81	560	
10:00	1165	9-5	15 1/2	81	575	not a not on
11:00	1165	9-5	16	81	591	
12:00	1165	9-5	16	81	607	
1:00	1165	9-5	16 1/2	81	624	
2:00	1165	9-5	16	81	640	
3:00	1165	9-5	16	81	656	
4:00	1165	9-5	16	81	672	
5:00	1165	9-5	16	81	688	
6:00	1165	9-5	16	81	704	
7:00	1165	9-5	16 1/2	81	720	
8:00	1165	9-5	16 1/2	81	737	not a not on
9:00	1165	9-5	16	81	753	Gwt
					45 hrs	

Knould in No 8 slope was rounded off.

Leise, Leives 1 1/2 R.P.M.

Added 500 general bath slope to plating solution 11th July.

July 6 Bath No 8

2nd disc in

Time	Spec	Volts	Amps	Temp	Total
2:30	1165	9-5	15	83	
5:30	1165	8-5	15-5	83	15
6:30	1165	9-5	16	83	31
7:30	1165	9-5	16	84	47
8:30	1165	8-5	16	84	63
9:30	1165	2-5	16	84	79
10:30	1165	9-5	16	84	95
11:30	1165	9-5	16	84	111
12:30	1165	9-5	16	84	127
1:41	July 7				
2:30	1165	9-5	15-5	84	143
3:30	1165	9-5	15-5	84	158
4:30	1165	9-5	15-5	84	174
5:30	1165	9-5	15-5	84	189
6:30	1165	9-5	15-5	84	205
7:30	1165	9-5	15-5	84	220
8:30	1165	9-5	15-5	84	236
9:30	1165	9-5	16	85	252
10:30	1165	9-5	15-5	85	267
11:30	1165	9-5	15-5	85	282
12:30	1165	9-5	15-5	83	298
1:30	1165	9-5	15	82	313
2:30	1165	9-5	15	83	328
3:30	1165	9-5	15-5	83	343
4:30	1165	9-5	15-5	84	359

$$\begin{array}{r}
 30 \overline{) 466} \quad 15.5 \\
 \underline{90} \\
 186 \\
 \underline{180} \\
 6
 \end{array}$$

# 8 Bath

2nd place in

Sp. No.	Volts	Amper.	Temp.	Total	1.75
1165	9.5	15.5	84	374	
1165	9.5	16	85	390	
1165	9.5	15.5	84	406	
1165	9.5	15.5	84	421	
1165	9.5	15.5	83	436	
1165	9.5	15	83	457	
1165	9.5	14.5	82	466	

Taken out to make  
room for # 2 in place  
of July 7, 20.

Revolved 2 minutes in lu bath, was  
put in lu bath wet.  
Ni plated disc from #2 in Bath  
Run to 600 Amps hours.  
Give to Mr Edison to see if he can  
peel it if possible  
No skimmer in bath.

# #8 Bath

2nd disc  
Ni plated disc  
from #2 Bath

July 7 20	Sp	Volts	Amps	Temp	Total
11 10	116.5	9.5	15	82	
12 10	116.5	9.5	15	82	15
13 10	116.5	9.5	15	82	30
14 10	116.5	9.5	15	82	45
15 10	116.5	9.5	15	82	60
16 10	116.5	9.5	16	82	76
17 10	116.5	9.5	16	82	92
18 10	116.5	9.5	15.5	82	107
19 10	116.5	9.5	15.5	82	123
20 10	116.5	9.5	15.5	82	138
21 10	116.5	9.5	16	82	154
22 10	116.5	9.5	16.5	80	170
23 10	116.5	9.5	16.5	82	187
24 10	116.5	9.5	16	82	203
25 10	116.5	9.5	15.5	80	218
26 10	116.5	9.5	15.5	80	234
27 10	116.5	9.5	15.5	80	249
28 10	116.5	9.5	16	80	265
29 10	116.5	9.5	16	80	282
30 10	116.5	9.5	15.5	81	297
31 10	116.5	9.5	15.5	80	313
1 11	116.5	9.5	15.5	80	328
2 11	116.5	9.5	15.5	80	344
3 11	116.5	9.5	15.5	80	359

Added 1000 gm. both dose to  
 copper plate sol. at 11 A.M. July 9.  
 After bed was turned off copper  
 plate stripped from nichel, leaving  
 Ni plate on disc.

$$\begin{array}{r}
 39 \mid 602.8 \mid 15.2 \\
 \underline{39} \\
 272 \\
 \underline{195} \\
 170 \\
 \underline{78} \\
 52
 \end{array}$$

Start July 7 30. - 11 AM.  
 Finish " 9. - 2 PM.  
 Total Amps 602  
 " hours 39  
 Average Amps 15.2

" 8 Bath

3rd disc  
 Ni plate  
 No 2 Bath

Volts	Amps	Temp	Total
116.5	9.5	15.5	375
116.5	9.5	15	390
July	9.20		
116.5	9.5	15	405
116.5	9.5	15	420
116.5	9.5	15	435
116.5	9.5	15	450
116.5	9.5	15	465
116.5	9.5	14.5	479
116.5	9.5	14.5	494
116.5	9.5	14	508
116.5	9.5	15	523
116.5	9.5	15.5	538
116.5	9.5	15.5	554
116.5	9.5	16	570
116.5	9.5	16	586
116.5	9.5	16	602

added inside  
 scrap.

Out

Copper disc. 8-4 Female  
 Ran 2 min in in bath no current.  
 Then run to 40 Amp hours.

# #1 Bath in Plate.

3rd place in  
 East mode

Sp. No.	Volts	Amps	Temp	Total
1280	9.5	9	85	
1280	9.5	10	85	18
1280	9.5	10	85	28
1280	9.5	10	95	30
1280	9.5	10	95	40
1280	9.5	11	97	51
1280	9.5	11	98	62
128	9.5	11	98	73

1st

transferred to  
 #26 Copper bath

Copper disc, 8-4 Row 2 mm in hi  
bath 3 hr current.  
Take out at 40 Amps hours

# #1 Bath in Plate 4th disc

Started July 9, 20. 11:15 PM.				
Time	Volt	Amp	Temp	Fth
11:15	12.80	9.5	11	98
11:30	12.80	9.5	11	98
11:45	12.80	9.5	10	98
12:00	12.80	9.5	10	98
12:15	12.80	9.5	10	98
12:30	12.80	9.5	10	98
12:45	12.80	9.5	10	98

Cent  
Was taken out  
by night shift  
and washed then  
put on rack



2nd One Cleanit with electric  
cleaner 1 minute wash well  
and rinse with distilled water  
and put in the bath with posit  
in and put belt on as quick as pos  
Run to 600 Amp hours.

# #8 Bath Copper Plate

Started July 10, 20, 11:45 PM				
Sp. No.	Volts	Amps	Temp	Total
1165	9.5	16	80	
1165	9.5	16	80	16
July 10				
1165	9.5	16	80	32
1165	9.5	16	80	48
1165	9.5	16	80	64
1165	9.5	16	80	80
1165	9.5	16	80	96
1165	9.5	16	80	112
1165	9.5	16	80	128
1165	9.5	16	80	144
1165	9.5	16	80	160
1165	9.5	16	80	176
1165	9.5	16	80	192
1165	9.5	16	80	208
1165	9.5	16	80	224
1165	9.5	16	80	240
1165	9.5	16	80	256
1165	9.5	16	80	272
1165	9.5	16	80	288
1165	9.5	16	80	304
1165	9.5	16	80	320
1165	9.5	16	80	336
1165	9.5	16	80	352
1165	9.5	16	80	368

Take out  
when 600  
Amp hours  
and wash &  
put on rack

23. Hour

$$\begin{array}{r}
 46 \bigg) \frac{747}{16} \bigg) 16.2 \\
 \underline{276} \\
 191
 \end{array}$$

1000 Put in more scrap Rues

# #8 Bath Copper Plate

Sh	Vella	Amp	Amp	Plot
1165	9-5	16	80	384
1165	9-5	16	80	400
1165	9-5	16	80	413
1165	9-5	16	80	432
1165	9-5	16	80	448
1165	9-5	16	80	464
1165	9-5	16	80	480
1165	9-5	16	80	496
1165	9-5	16	80	512
1165	9-5	16	80	528
1165	9-5	16	80	544
1165	9-5	17-5	80	561
1165	9-5	17	80	578
1165	9-5	17	80	595
1165	9-5	17	80	612
1165	9-5	17	80	629
1165	9-5	17	80	646
1165	9-5	17	80	663
1165	9-5	17	80	680
1165	9-5	17	81	697
1165	9-5	17	81	714
1165	9-5	17	81	731
1165	9-5	16-5	81	747

Out 46 hours

NE 1. Nickel mould run for  
2 minutes. After current put on  
155 Amp.

NE 8 mould taken from rack  
put in Bath dry with  
current on

# NE 8 Bath Copper

JULY	Ln.	Volts	Amps	Amps	Total
7:15 PM	1165	9.5	16	81	
7:20	1165	9.5	16.5	81	16
7:30	1165	9.5	16.5	81	33
7:40	July 12				
7:50	1165	9.5	16.5	81	49
8:00	1165	9.5	16.5	81	66
8:10	1165	9.5	16.5	81	82
8:20	1165	9.5	16	81	98
8:30	1165	9.5	16	81	114
8:40	1165	9.5	16	81	130
8:50	1165	9.5	16.5	81	147
9:00	1165	9.5	16.5	81	163
9:10	1165	9.5	16.5	83	180
9:20	1165	9.5	16.5	82	196
9:30	1165	9.5	16.5	82	213
9:40	1165	9.5	17	80	230
9:50	1165	9.5	17	80	247
10:00	1165	9.5	16.5	80	263
10:10	1170	9.5	16	80	279
10:20	1165	9.5	16.5	80	296
10:30	1165	9.5	17	80	313
10:40	1165	9.5	17	80	330
10:50	1165	9.5	16.5	80	346
11:00	1165	9.5	16.5	80	363
11:10	1165	9.5	16	81	379

$$\begin{array}{r} 37) 602 \quad (16.2 \\ \underline{37} \\ 232 \\ \underline{232} \\ 0 \end{array}$$

Start July 11, 20 at 10:20 AM.  
 Finish " 13, 20 " 11:30 AM.  
 Total Amp 602  
 " Miles. 37  
 Average Amps. 16.2

Mr 8 Book

SSr	Volta	Amp	Time	Total
1165	9.5	16.	83	391
1165	9.5	16.	83	407
1165	9.5	16.	83	423
July 13	E.O.			
1165	9.5	16	81	439
1165	9.5	16	81	455
1165	9.5	16	81	471
1165	9.5	16	81	487
1165	9.5	16	81	503
1165	9.5	16	81	519
1165	9.5	16	82	535
1165	9.5	16	82	551
1165	9.5	17	82	568
1165	9.5	17	82	585
1165	9.5	17	82	602

Out.

Revolve 2 min in Bath  
Put in dry.

in 171 Amp-hours.  
Washed-rinsed-distilled  
water put in wet Ca.  
full current on.

$$45 \int \frac{762}{4.05} / 16.9$$

$$\begin{aligned} \text{Total Amps} &= 762 \\ \text{hours} &= 45 \\ \text{Average Amps} &= 16.9 \end{aligned}$$

#8 Bath

Started July 13, 20 at 12 noon.

TIME	VOLTS	AMP	TEMP	TOTAL
11:55	9.5	17	85	17
11:58	9.5	17.5	83	35
12:00	9.5	18	85	53
12:02	9.5	18	85	70
12:04	9.5	16.5	85	87
12:05	9.5	17	85	104
12:06	9.5	17	80	121
12:07	9.5	17	80	138
12:08	9.5	17	80	155
12:09	9.5	17	85	172
12:10	9.5	16.5	84	189
12:11	9.5	17	83	206
12:12	9.5	17	83	223
12:13	9.5	16.5	83	240
12:14	9.5	16.5	84	257
12:15	9.5	16.5	84	274
12:16	9.5	17	83	291
12:17	9.5	17	83	308
12:18	9.5	17	83	325
12:19	9.5	17	83	342
12:20	9.5	17	83	359
12:21	9.5	17	83	376
12:22	9.5	17	83	393

$$45 \overline{) 762} \left( 17. \right.$$

$$\underline{45}$$

$$312$$

# #8 Bath

Sp. Dr.	Volt	Amps	Temp	Total	340
1165	9.5	17	80	407	
1165	9.5	16.5	80	423	
1165	9.5	17	80	440	
1165	9.5	17.5	87	457	
1165	9.5	17	85	474	
1165	9.5	16.5	85	490	
1165	9.5	16.5	85	507	
1165	9.5	16.5	85	523	
1165	9.5	17.5	85	540	
1165	9.5	17.5	85	558	
1165	9.5	17	83	575	
1165	9.5	17	83	592	
1165	9.5	17	83	609	
July 15, 20					
1165	9.5	17	83	626	
1165	9.5	17	83	643	
1165	9.5	17	83	660	
1165	9.5	17	81	677	
1165	9.5	17	81	694	
1165	9.5	17	81	711	
1165	9.5	17	81	728	
1165	9.5	17	81	745	
1165	9.5	17	81	762	

Cent.

Taken from #2 Meters 10 P.M.  
 July 15, at 8.4 amperes  
 Treatment in Quetta bath  
 Put in wet, covered 1  
 minute no current, then full  
 current on.  
 Put into Copper bath  
 dry with full current on.

Total amperes = 660  
 " " " = 96  
 Average amperes = 18.3

# # 8 Bath

Started

Time	Volts	Amperes	Watts	Total
11:05	9.5	18.0	92	
11:10	9.5	19.5	112	19
11:15	9.5	17.5	90	39
11:20	9.5	20		
11:25	9.5	19	90	58
11:30	9.5	19	90	77
11:35	9.5	19	90	95
11:40	9.5	19	90	114
11:45	9.5	19	90	133
11:50	9.5	19	90	152
11:55	9.5	19	90	171
12:00	9.5	19	90	190
12:05	9.5	19	90	209
12:10	9.5	19	90	227
12:15	9.5	19	90	246
12:20	9.5	19	90	264
12:25	9.5	19	90	283
12:30	9.5	19	90	303
12:35	9.5	19	90	323
12:40	9.5	19	90	341
12:45	9.5	19	90	360
12:50	9.5	19	90	379
12:55	9.5	19	90	397
1:00	9.5	19	90	412
1:05	9.5	19	90	430

Transferred from  
 #2 Meters  
 July 15, 20.  
 Total Amperes 664  
 Hi Plectil

$$\begin{array}{r}
 36 \overline{) 660} \\
 \underline{360} \\
 300 \\
 \underline{288} \\
 120 \\
 \underline{120} \\
 0
 \end{array}
 \quad 18.3$$

# #8 Bath.

Line	Spec	Wt	Ampl	Temp	Total
116	1165	9.5	18	88	448
117	1165	9.5	18	89	466
118	1165	9.5	18	89	484
July 17, 20					
119	1165	9.5	17.5	90	501
120	1165	9.5	17.5	90	519
121	1165	9.5	17.5	90	536
122	1165	9.5	17.5	90	554
123	1165	9.5	17.5	90	571
124	1165	9.5	17.5	90	589
125	1165	9.5	17.5	90	606
126	1165	9.5	17.5	90	624
127	1165	9.5	18	93	642
128	1165	9.5	18.5	93	660

Out





Rev. 60 mins <sup>the</sup> than full current on.

Taken from No 2 Michael bath  
8.00 Pm July 17-20

Put in gas Bath. Try with full current on

After 10 min in H<sub>2</sub>O bath shows  
copper color on disc.

Cracked on edge of mould  
after 3 hours in isolated.

# Bath 8

17-20	Volts	Imps	Imps	Total
1170	9-5	17-5	98	
1170	9-5	17-5	98	17
1170	9-5	18	90	35
1170	9-5	18	89	53
1170	9-5	18	92	71
1170	9-5	19	92	90
1170	9-5	19	92	109
1170	9-5	19-5	92	129
1170	9-5	18	92	147
1170	9-5	18	92	165
1170	9-5	17-5	90	180
1170	9-5	17-5	90	202
1170	9-5	17-5	90	217
1170	9-5	17-5	90	235
1170	9-5	17-5	90	253
1170	9-5	17-5	90	270
1170	6-5	17-5	98	288
1170	9-5	18	92	306
1170	9-5	18	92	324
1170	9-5	18	92	342
1170	9-5	19	94	361
1170	9-5	19	94	380
1170	9-5	19	94	399
1170	9-5	19	94	418

Transferred,  
from # 2 to  
Bath July 17, 20  
8 PM.  
77 amp in bath

42/736/17.5  
 42  
 3294.00  
 17.5

Total Amps 736  
 " hours 42  
 Average Amps 17.5

~~July 18~~ Bath 8

July 18	Volts	Amps	Total
8	1170	9.5	18
9	1170	9.5	17.5
10	1170	9.5	17
11	1170	9.5	17
12	1170	9.5	17
July 19			
1	1170	9.5	17
2	1170	9.5	16
3	1170	9.5	16
4	1170	9.5	16
5	1170	9.5	16.5
6	1170	9.5	16.5
7	1170	9.5	16.5
8	1170	9.5	16
9	1170	9.5	16
10	1165	9.5	16
11	1165	9.5	17
12	1165	9.5	18
13	1165	9.5	18

26.00 of Copper chips  
 26.00 of Copper chips

Out



42) 6260 / 14.9  
 4240  
 2060  
 768  
 388

COPPER BATHS									
1	2	3	4	5	6	7	8		
1AB ✓	1170	9.5	2AB ✓	349		371			
2AB ✓	"	"	3AB ✓	349		388	435		
3AB ✓	"	"	4AB ✓	365		406	452		
4AB ✓	"	"	5AB ✓	381		423	470		
5AB ✓	"	"	6AB ✓	398		439	487		
6AB ✓	"	"	7AB ✓	411	8AB	456	503		
7AB ✓	"	"	8AB ✓	427	9AB	472	519	589	
8AB ✓	"	"	9AB ✓	441	318	489	536	608	
9AB ✓	"	"	10AB ✓	456	338	505	553	628	
10AB ✓	"	"	11AB ✓	471	358	521	573	648	
12AB ✓	"	"	13AB ✓	486	379	538	590	660	
13AB ✓	"	"	14AB ✓	501	396	555	607	677	
14AB ✓	"	"	15AB ✓	516	415	571	623	693	
15AB ✓	"	"	16AB ✓	531	435	588	640	710	
16AB ✓	"	"	17AB ✓	547	455	604	656	726	
17AB ✓	"	"	18AB ✓	563	475	621	673	743	
18AB ✓	"	"	19AB ✓	579	495	638	690	760	
19AB ✓	"	"	20AB ✓	595	515	654	706	776	
20AB ✓	"	"	21AB ✓	611	535	671	723	793	
21AB ✓	"	"	22AB ✓	627	555	688	740	810	
22AB ✓	"	"	23AB ✓	643	575	704	756	826	
23AB ✓	"	"	24AB ✓	659	595	721	773	843	
24AB ✓	"	"	25AB ✓	675	615	738	790	860	
25AB ✓	"	"	26AB ✓	691	635	754	806	876	
26AB ✓	"	"	27AB ✓	707	655	771	823	893	
27AB ✓	"	"	28AB ✓	723	675	788	840	910	
28AB ✓	"	"	29AB ✓	739	695	804	856	926	
29AB ✓	"	"	30AB ✓	755	715	821	873	943	
30AB ✓	"	"	31AB ✓	771	735	838	890	960	
31AB ✓	"	"	32AB ✓	787	755	854	906	976	
32AB ✓	"	"	33AB ✓	803	775	871	923	993	
33AB ✓	"	"	34AB ✓	819	795	888	940	1010	
34AB ✓	"	"	35AB ✓	835	815	904	956	1026	
35AB ✓	"	"	36AB ✓	851	835	921	973	1046	
36AB ✓	"	"	37AB ✓	867	855	938	990	1066	
37AB ✓	"	"	38AB ✓	883	875	954	1006	1086	
38AB ✓	"	"	39AB ✓	899	895	971	1023	1106	
39AB ✓	"	"	40AB ✓	915	915	988	1040	1126	
40AB ✓	"	"	41AB ✓	931	935	1004	1056	1146	
41AB ✓	"	"	42AB ✓	947	955	1021	1073	1166	
42AB ✓	"	"	43AB ✓	963	975	1038	1090	1186	
43AB ✓	"	"	44AB ✓	979	995	1054	1106	1206	
44AB ✓	"	"	45AB ✓	995	1015	1071	1123	1226	
45AB ✓	"	"	46AB ✓	1011	1035	1088	1140	1246	
46AB ✓	"	"	47AB ✓	1027	1055	1104	1156	1266	
47AB ✓	"	"	48AB ✓	1043	1075	1121	1173	1286	
48AB ✓	"	"	49AB ✓	1059	1095	1138	1190	1306	
49AB ✓	"	"	50AB ✓	1075	1115	1154	1206	1326	
50AB ✓	"	"	51AB ✓	1091	1135	1171	1223	1346	
51AB ✓	"	"	52AB ✓	1107	1155	1188	1240	1366	
52AB ✓	"	"	53AB ✓	1123	1175	1204	1256	1386	
53AB ✓	"	"	54AB ✓	1139	1195	1221	1273	1406	
54AB ✓	"	"	55AB ✓	1155	1215	1238	1290	1426	
55AB ✓	"	"	56AB ✓	1171	1235	1254	1306	1446	
56AB ✓	"	"	57AB ✓	1187	1255	1268	1323	1466	
57AB ✓	"	"	58AB ✓	1203	1275	1281	1340	1486	
58AB ✓	"	"	59AB ✓	1219	1295	1294	1356	1506	
59AB ✓	"	"	60AB ✓	1235	1315	1303	1373	1526	
60AB ✓	"	"	61AB ✓	1251	1335	1314	1393	1546	
61AB ✓	"	"	62AB ✓	1267	1355	1324	1413	1566	
62AB ✓	"	"	63AB ✓	1283	1375	1334	1433	1586	
63AB ✓	"	"	64AB ✓	1299	1395	1344	1453	1606	
64AB ✓	"	"	65AB ✓	1315	1415	1354	1473	1626	
65AB ✓	"	"	66AB ✓	1331	1435	1364	1493	1646	
66AB ✓	"	"	67AB ✓	1347	1455	1374	1513	1666	
67AB ✓	"	"	68AB ✓	1363	1475	1384	1533	1686	
68AB ✓	"	"	69AB ✓	1379	1495	1394	1553	1706	
69AB ✓	"	"	70AB ✓	1395	1515	1404	1573	1726	
70AB ✓	"	"	71AB ✓	1411	1535	1414	1593	1746	
71AB ✓	"	"	72AB ✓	1427	1555	1424	1613	1766	
72AB ✓	"	"	73AB ✓	1443	1575	1434	1633	1786	
73AB ✓	"	"	74AB ✓	1459	1595	1444	1653	1806	
74AB ✓	"	"	75AB ✓	1475	1615	1454	1673	1826	
75AB ✓	"	"	76AB ✓	1491	1635	1464	1693	1846	
76AB ✓	"	"	77AB ✓	1507	1655	1474	1713	1866	
77AB ✓	"	"	78AB ✓	1523	1675	1484	1733	1886	
78AB ✓	"	"	79AB ✓	1539	1695	1494	1753	1906	
79AB ✓	"	"	80AB ✓	1555	1715	1504	1773	1926	
80AB ✓	"	"	81AB ✓	1571	1735	1514	1793	1946	
81AB ✓	"	"	82AB ✓	1587	1755	1524	1813	1966	
82AB ✓	"	"	83AB ✓	1603	1775	1534	1833	1986	
83AB ✓	"	"	84AB ✓	1619	1795	1544	1853	2006	
84AB ✓	"	"	85AB ✓	1635	1815	1554	1873	2026	
85AB ✓	"	"	86AB ✓	1651	1835	1564	1893	2046	
86AB ✓	"	"	87AB ✓	1667	1855	1574	1913	2066	
87AB ✓	"	"	88AB ✓	1683	1875	1584	1933	2086	
88AB ✓	"	"	89AB ✓	1699	1895	1594	1953	2106	
89AB ✓	"	"	90AB ✓	1715	1915	1604	1973	2126	
90AB ✓	"	"	91AB ✓	1731	1935	1614	1993	2146	
91AB ✓	"	"	92AB ✓	1747	1955	1624	2013	2166	
92AB ✓	"	"	93AB ✓	1763	1975	1634	2033	2186	
93AB ✓	"	"	94AB ✓	1779	1995	1644	2053	2206	
94AB ✓	"	"	95AB ✓	1795	2015	1654	2073	2226	
95AB ✓	"	"	96AB ✓	1811	2035	1664	2093	2246	
96AB ✓	"	"	97AB ✓	1827	2055	1674	2113	2266	
97AB ✓	"	"	98AB ✓	1843	2075	1684	2133	2286	
98AB ✓	"	"	99AB ✓	1859	2095	1694	2153	2306	
99AB ✓	"	"	100AB ✓	1875	2115	1704	2173	2326	

July 23 at 3-30 AM had  
to shut down on account of  
tube popping. Lost considerable  
amount of solution. Started  
again at 4.55 AM.

Note plus  
off

Copper baths

[illegible]

July 22 Ropper Butte alt #8

Thick	8 ft	Vol	Ampl	Comp	6 ft	1	2	3
1224	1170	9.5	83					

45 / 137  
 257  
 270  
 178  
 135  
 16.3

July 23 3 PM Out

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Treated discs  
Regular Process - Copper Bath  
Heat, full current on

#7 Bath  
Started July 21, @ 5 P.M.

#11 Rubber  
normal

TIME	SP. RT.	TEMP	VOLT	AMP	TOTAL
5:00 PM	1170	83	10.	16	
6	"	86	"	17	16
7	"	86	"	18	34
8	"	84	"	17.5	51
9	"	84	"	17.5	69
10	"	84	"	17.5	86
11	"	82	"	18	104
12	"	82	"	17.5	122
AM					
1:00		82	"	17.5	139
2:00	"	80	"	18	157
3:00	"	80	"	18	175
4:00	"	80	"	18	193
5:00	"	80	"	18	211
6:00	"	82	"	18	229
7:00	"	82	"	18	247
8:00	"	82	"	18	265
9	"	82	"	17.5	282
10	"	82	"	17.5	300
11	"	85	"	17.5	317
12	"	83	"	17.5	335
1	"	85	"	17.5	352
2	"	"	"	17.5	370
3	"	"	"	17.5	387
4	"	90	9.5	18	405

July 22 - A.M.

Added 1000 cc  
H<sub>2</sub>SO<sub>4</sub> to Bath  
change to 9.5 Volt

#7 Bath

#11 Rubber  
Vornich

TIME	Pressure	TEMP.	Volt	Amp	TOTAL	
3.00	1175	85	9.5	17	422	Shut down field current out
M	1170	83	9.5	18	440	
00	1170	83	9.5	18	458	
00	1170	83	9.5	18	476	
00	1170	82	9.5	19	495	
00	1170	82	9.5	19	514	
00	1170	80	9.5	19	532	
00	1170	80	9.5	17	550	
00	1170	82	9.5	18	570	
00	1170	82	9.5	18	588	
—	1170	83	9.5	18	606	
0	"	85	"	19.5	625	cut out

30/625/18  
 35/588/18  
 35/570/18

Total Amps 625  
 hours 35  
 Average Amps 18



# 213<sup>rd</sup>

Epp 7A-B

Started July 26 2:06 PM

Time	Spgr	TEMP	Robts	Onp	Total
6 PM	1170	86	10	17.5	
7	1170	86	"	17.5	17
8	"	84	"	17.5	35
9	"	84	"	17.5	52
10	"	84	"	17.5	70
11	"	82	"	17.5	88
12	"	82	"	18	96
July - 22 AM					
1:00	"	82	"	18	114
2	"	80	"	18	132
3	"	80	"	18	150
4	"	80	"	18	168
5	"	80	"	18	186
6	"	82	"	18	204
7	"	82	"	18	222
8	"	82	"	18	240
9	1175	83	"	17.5	257
10	"	85	"	17.5	275
11	1170	85	"	16.5	291
12	1170	83	"	16.5	308
1 PM	1170	85	10	16.5	324
2	1170	85	10	16.5	341
3	"	"	"	16.5	354
4	1170	90	9.5	17.5	375
5	1175	85	"	16.5	391

Added 1000 cc

H<sub>2</sub>SO<sub>4</sub> to

bath

change to 9.5 Volt

# 2 Bath

Exp 7A-B.

July 22, 20.

TIME	Sp. rev	Temp	Volt	Amp	Total	Shut down Field blow out.
12:00	1170	83	9.5	17	4.08	
AM	July	23-20				
1:00	1170	83	9.5	17	4.25	
2:00	1170	83	9.5	17	4.42	
3:00	1170	82	9.5	17.5	4.60	
4:00	1170	82	9.5	17.5	4.77	
5:00	1170	80	9.5	17	4.94	
6:00	1170	80	9.5	17	5.11	
7:00	1170	82	9.5	16.5	5.27	
8:00	1170	82	9.5	16.5	5.44	
9	1170	83	9.5	16.5	5.60	
10	"	85	"	18	5.78	
11	"	82	"	24	6.02	
12	"	82	"	18.5	6.21	
1PM	"	83	"	19	6.40	
2	"	"	"	19	6.59	
3	"	"	"	18.5	6.77	Entered

39) 677 (17.3  
 287  
 223  
 140

Total Amps 677  
 " hours 39  
 Average Amps 17.3

Treated disc.  
Net, full current on

# 6 Bath

# 12 Rubber  
Dermish.

Started July 22 20. at 10 AM.

Time Spent Temp Volts Amper Total

10 AM.	1175	85	16	17	
11	1170	85	"	17	17
12	1170	83	"	17	34
1 PM.	"	85	"	17	51
2	"	"	"	16.5	69
3	"	"	"	17	84
4	1170	90	9.5	20	104
5	1175	85	"	18.5	123

Change to 9.5 Volts

Filed Amper not  
Shut down

12	1170	83	9.5	17	
July 23 20					
1 PM.	1170	83	9.5	17	
2	1170	83	9.5	17	
3	1170	82	9.5	17.5	
4	1170	82	9.5	17.5	
5	1170	80	9.5	17.5	
6	1170	80	9.5	17.5	
7	1170	82	9.5	21	280
8	"	"	"	21	301
9	"	88	"	20	321

Shut down at 5:50 power  
off started at 6 o'clock.

Shut down again at 6:57  
started 6:55.

395 / 758 1/2  
395 / 758 1/2  
395 / 758 1/2  
395 / 758 1/2  
395 / 758 1/2

# #6 Bath

#12 Rubber  
Hornish

Time	Sp. gr.	Temp	Volt	Amps	Total
10 AM	1176	85	9.5	21	342
11	"	82	"	21	363
12	"	82	"	21	384
1 PM	"	82	"	22	406
2	"	"	"	21.5	427
3	1165	83	"	22	449
4	"	83	"	21.5	471
5	"	84	"	21.5	492
6	"	84	"	20	512
7	"	83	"	19	531
8	"	82	"	19	550
9	"	82	"	19	569
10	"	84	"	19	588
11	"	84	"	19	607
12	"	84	"	19	626
1:00	"	85	"	19	645
2:00	"	84	"	19	664
3:00	"	82	"	18	682
4:00	"	82	"	18	700
5:00	"	80	"	18	718
6:00	"	80	"	18	736
7:00	"	80	"	17	753
7:30	"	80	"	17	758

1st time in

Out

Inertial rise.  
Ket, full current on.

# # 5 Bath

Started July 22 20 @ 11 AM.

Time	Sp. Gr.	Temp	Voltage	Amper	Total
1 AM	1170	85	10	19	19
2	"	83	"	19	38
3	"	85	"	19	57
4	"	"	"	19	76
5	"	90	9.5	23	99
6	1175	85	"	21.5	120
7					
8					
9					
10					
11					
12	1170	83	9.5	22	142
1 AM	1170	83	9.5	22	164
2	1170	83	9.5	22	186
3	1170	82	9.5	23	209
4	1170	82	9.5	23	232
5	1170	80	9.5	23	255
6	1170	80	9.5	23	278
7	1170	82	9.5	23	301
8	"	"	"	23	324
9	"	83	"	22	346
10	"	85	"	25	371

# # 13. Rubber Crumb

\* added 1000 cc  
H<sub>2</sub>SO<sub>4</sub> to  
upper bath  
\* changed to 9.5 Vols  
field must not  
shut down

33  $\frac{1750}{168}$   $\frac{22.7}{90}$   
 $\frac{260}{271}$

#5 Bath

#13 Rubber  
Garnish.

TIME	SP. R.	TEMP	VOLTS	AMP	TOTAL
1 AM	1170	82	9.5	24	395
2	"	"	"	24	419
3	"	"	"	25	444
4	"	"	"	25	469
5	1165	83	"	25	494
6	"	"	"	24	518
7	"	84	"	24.5	542
8	"	84	"	24	566
9	"	83	"	23.5	589
10	"	82	"	23.5	613
11	"	82	"	23.5	635
12	"	84	"	23.5	659
1 PM	"	84	"	23.5	682
200	"	"	"	23.5	706
300	"	"	"	"	"

1st time in.

cut

#4 Bath

July 22, 20 at 11 AM

Time	Sp. Gr.	Temp.	Volt.	Amper.	Totals
11 AM	1170	85	10	27	
12	"	83	"	20	20
1 PM	"	85	"	20	40
2	"	"	"	20	60
3	"	"	"	21	71
4	"	90	9.5	18.5	89
5	1175	85	"	20	109
6					
7					
8					
9					
10					
11					
12	1170	83	9.5	19	128
1 PM	1170	83	9.5	19	147
2	1170	83	9.5	19	166
3	1170	82	9.5	20	186
4	1170	82	9.5	20	206
5	1170	80	9.5	21	227
6	1170	80	9.5	21	248
7	"	82	"	21	269
8	"	82	"	21	290
9	"	83	"	21	311
10	"	85	"	20	331

#10 Rubber

remains  
2nd time in100 cc #2504  
added at noon

\* Change to 9.5 Volts

Field instrument  
shut down.

395 / 7472 / 18.9  
 20 320  
 21 520  
 22 350  
 23 350

#4 Bath

#10 Rubber Varnish

TIME	Sp. R.	TEMP	Volts	Amps	Total	501
11 AM	1170	82	9.5	21	352	
12	"	"	"	21	373	
1 PM	"	"	"	21	394	
2	"	"	"	19	413	
3	1165	83	"	18.5	431	
4	"	"	"	18.5	450	
5	"	84	"	20	470	
6	"	84	"	20	490	
7	"	83	"	19	509	
8	"	82	"	19	528	
9	"	82	"	18	546	
10	"	84	"	17.5	563	
11	"	84	"	17.5	581	
12	"	84	"	17.5	598	
1 PM	"	85	"	18	616	
2	"	84	"	18	634	
3	"	82	"	17	651	
4	"	82	"	17	668	
5	"	80	"	17	685	
6	"	80	"	17	702	
7	"	80	"	18	720	
8	"	80	"	18	738	
9	"	"	"	18	747	

2 mg. Tumor in bath.

✓  
 Latent



#3 Bath

cont July 22, 20 at 3 PM.

TIME	Temp	Volt	Amp	Temp
3 PM	1170	85	10	19
4	"	90	9.5	19
5	1175	85	"	21.5
6	1175	"	"	21.5
1200	1170	83	9.5	21
AM	July	23	20	
1.00	1170	83	9.5	21
2.00	1170	83	9.5	22
3.00	1170	82	9.5	23
4.00	1170	82	9.5	23
5.00	1170	80	9.5	23
6.00	1170	80	9.5	23
7.00	1170	82	9.5	22
8.00	1170	82	"	22
9	"	83	"	22
10	"	85	"	25
11	"	82	"	24
12	"	"	"	24
1 PM	"	"	"	24
2	"	"	"	23
3	1165	83	"	23.5
4	"	"	"	22
5	"	84	"	23.5
6	"	84	"	22

#14 Rubber  
Carnick

Changed to 9.5 V

$$\begin{array}{r} 375 \\ \times 292 \\ \hline 710 \\ 820 \\ \hline 710 \\ \hline 10 \end{array}$$

#3 Bath

#14 Rubber  
Pamish

TIME	Sp. Hg	TEMP	Voltage	Amper	Total
7 PM	114	83	9.5	22	517
8	"	82	"	22	539
9	"	82	"	22	561
10	"	84	"	22.5	583
11	"	84	"	22.5	606
12	"	84	"	22.5	628
	July		24		
1.00	"	85	"	23	651
2.00	"	84	"	22	573
3.00	"	82	"	23	596
4.00	"	82	"	23	719
5.00	"	80	"	21	740
6.00	"	80	"	21	761
7.00	"	80	"	21	782
8.30	"	80	"	21	792

1st time in Bath.  
 Put out  
 N.G.  
 for many books

#7  
July 23, 20

Bath

Oct 1030

Rubber  
varnish  
#17.

TIME	Temp	Volts	Amps	Total
11:00 AM	1170	85	9.5	19.5
12:30	"	82	"	19
12:30 PM	"	82	"	38
1:30	"	"	"	57
2:30	"	"	"	77
3:30	1165	83	"	97
4:30	"	"	"	119
5:30	"	84	"	138
6:30	"	83	"	158
7:30	"	82	"	177
8:30	"	82	"	195
9:30	"	84	"	212
10:30	"	84	"	230
11:30	"	84	"	247
12:30	"	84	"	265
July 24, 20				
1:00 PM	"	85	"	18
2	"	84	"	30.0
3	"	82	"	31.4
4	"	82	"	33.5
5	"	80	"	35.2
6	"	80	"	37.0
7	"	80	"	38.6
8	"	80	"	40.2
9	"	78	"	41.8

Looks best around  
first glassy surface

# 7 Bath

Rubber Damish

#17

TIME	Sp	Sw	TEMP	Volts	Ampe	total	92
11:44 AM	1170	80	9.5	16	434		
11	1170	"	"	16.5	451		
12	"	"	"	17	468		
1 PM	11	"	"	17.5	485		
2	"	"	"	17	502		
3	"	"	"	17.5	520		
4	1168	84	9.5	17.5	537		
5	"	"	"	17	554		
6	"	"	"	17	571		
7	"	"	"	17	588		
8	"	80	"	17	605		
9	"	80	"	16.5	621		
10	"	80	"	16.5	638		
11	"	80	"	16.5	654		
12	1170	80	"	16.5	670		
1 PM	2530	80	"	17.5	688		
2	"	80	"	17.5	705		
3	"	81	"	17.5	722		
4	"	81	"	17	739		
5	"	81	"	17	756		

1st time in 621 643

Note lug loosened from mold. (17)

#2 Bath

Started July 23, 20, 3 PM.

TIME	SP. R.	Temp	Volta	Amper	Set
3 PM.	1165	83	9.5	18.5	
4	"	"	"	18.5	18
5	"	84	"	17.5	36
6	"	"	"	17.5	53
7	"	83	"	17.5	71
8	"	80	"	17	87
9	"	82	"	17	104
10	"	84	"	17	121
11	"	84	"	17	138
12	"	84	"	17	155

July 24, 30.

100	"	85	"	17	172
200	"	84	"	16	188
300	"	82	"	16	204
400	"	82	"	16	220
500	"	80	"	16	236
600	"	80	"	16	252
700	"	80	"	15	267
800	"	80	"	15	282
900	1170	"	"	15.5	297
10	"	"	"	15.5	303
11	"	"	"	16	319
12	"	"	"	15.5	334
14	"	"	"	16	350
2	"	"	"	16.5	367

Rubber Garinish

#15

Noticed splinters  
Monitored a 3-30

Note: Knobs on rubber  
veg. plentiful. Removed  
by blades. <sup>thin</sup> error.  
Note: for a stripper  
while working.

47/247/15.9  
22  
23  
22  
22  
22  
22

#2 Bath

Rubber Barkish  
#15

TIME	Sp. S.W.	TEMP.	Volts	Amperes	Total
3	1170	80	9.5	16	383
4	1165	84	9.5	16	399
5	"	"	"	16	418
6	"	"	"	16	431
7	"	"	"	16	447
8	"	80	"	16	464
9	"	80	"	16	479
10	"	80	"	16	495
11	"	80	"	16	511
12	"	80	"	16	527
13	1170	80	"	16	543
14	"	80	"	15	538
15	"	81	"	15	543
16	"	81	"	15	588
17	"	82	"	15	603
18	"	82	"	15	618
19	"	82	"	15	633
20	"	81	"	15	648
21	"	81	"	16	664
22	"	"	"	16	680
23	"	"	"	16	696
24	"	"	"	17	713
25	"	"	"	17	730
26	"	"	"	17	747

1st time in.

533

Let your account for 21 days  
from your first payment.

# 8 Bath.

Rubber Varnish

July 23, 20. at 3 P.M.

#16

TIME	SP. GRAV	TEMP	Wt. of	Ampl	Total
5 PM	1165	83	9.5	18.5	
5	"	"	"	18.5	18
5	"	84	"	17.5	36
6	"	84	"	17.5	53
7	"	83	"	17.5	70
8	"	82	"	17	87
9	"	82	"	17	104
10	"	84	"	16.5	120
11	"	84	"	16.5	137
12	"	84	"	16.5	153
July 23, 20.					
1 PM	"	85	"	16.5	170
200	"	84	"	16	186
300	"	82	"	16	202
400	"	82	"	16	218
500	"	80	"	16	234
600	"	80	"	16	250
700	"	80	"	15.5	265
800	"	80	"	15.5	281
9	1170	"	"	16	297
10	"	"	"	16	303
11	"	"	"	16	319
12	"	"	"	16.5	335
1	"	"	"	17	352
2	"	"	"	16.5	368

47/758 / 16.1  
 16.5  
 282  
 16.1

# 8 Bath

Rubber varnish  
 #16

TIME	Sp. Bn	TEMP	Volt	amp	total
3	1170	80	9.5	17	385
4	1165	84	9.5	16.5	401
5	"	"	"	16.5	418
6	"	"	"	16.5	434
7	"	"	"	16.5	450
8	"	80	"	16.5	467
9	"	80	"	16.5	483
10	"	80	"	16.5	500
11	"	80	"	16.5	516
12	1140	80	"	16.5	533
13	1140	80	"	16.5	549
14	"	80	"	16	565
15	"	80	"	15.5	581
16	"	81	"	15.5	596
17	"	82	"	15.5	612
18	"	82	"	15.5	627
19	"	82	"	15.5	643
20	"	81	"	15	658
21	"	"	"	16.5	674
22	"	"	"	16	690
23	"	"	"	17	707
24	1165	"	"	16.5	724
25	"	"	"	17	741
26	"	"	"	17	758

1st time in

out



July 26

Shut Down 5-15 AM until  
5 45 AM Had to clean  
brushes on motor. Brushes were  
covered with oil.

Stopped 6.45 for ten min:  
Shaft was loose.

#4 Bath

started July 24, 20. at 11 AM.

TIME	Sp. Air	TEMP	Vdts	Comp	Total
1 AM	1170	80	9.5	17	16.
2	"	"	"	16.5	16.
3	"	80	9.5	16	32
4	"	"	9.5	18	50
5	"	"	9.5	19	69
6	1165	84	9.5	19	88
7	1165	"	9.5	19	107
8	"	"	"	19	126
9	"	"	"	19	145
10	"	80	"	19	164
11	"	80	"	18	182
12	"	80	"	18	200
1	"	80	"	18	218
2	1170	80	"	18	236
3	"	80	"	15	251
4	"	81	"	15	266
5	"	81	"	15	281
6	"	82	"	15	296
7	"	82	"	15	311
8	"	81	"	15	326
9	"	"	"	15	341
10	"	"	"	15	356

Rubber varnish.

#10 -

3rd time in

$$46 \overline{) 234} \begin{array}{r} 5 \\ 230 \\ \hline 4 \end{array} / 16.$$

#4 Bath

Rubber damish

TIME	Sp. Wt.	TEMP	Volts	Amper	Total
11	1170	81	9.5	15	704
12	1165	"	"	16	720
1	"	"	"	16	736
2	"	"	"	16	752
3	"	"	"	16	768
4	"	"	"	15	783
5	"	"	"	15	798
6	"	"	"	15	813
7	"	"	"	15	828
8	"	"	"	15	843
9	"	"	"	15	858
10	"	"	"	15	873
11	"	"	"	15	888
12	"	"	"	16	904
1	"	83	"	16	920
2	"	83	"	16	936
3	"	81	"	17	953
4	"	81	"	17	970
5	"	81	"	16	986
6	"	82	"	15	1001
7	1165	83	"	16.5	1017
8	"	83	"	16.5	1034
9	"	83	"	16.5	1051

July 26 -

#10  
2nd time in

3rd time in

Out

#6 Bath

Rubberbarium

July 24, 20, at 11 AM.

#12

TIME	Sp. In	Temp	Volts	Amp	Total
11 AM	1170	80	9.5	16	18
12	"	"	"	18	37
1 PM	"	"	"	19	55
2	"	"	"	18.5	74
3	"	"	"	18.5	92
4	1165	84	"	18	110
5	"	"	"	18	126
6	"	"	"	18	144
7	"	"	"	18	162
8	"	80	"	18	180
9	"	80	"	18	198
10	"	80	"	18	216
11	"	80	"	18	234
12	1140	80	"	18	252
July 25, 20					
1 AM	"	80	"	18	270
2	"	80	"	17.5	284
3	"	81	"	17.5	305
4	"	81	"	17.5	322
5	"	82	"	17.5	340
6	"	82	"	17.5	354
7	"	82	"	17	374
8	"	81	"	17	391
9	"	"	"	17	408
10	"	"	"	"	"

2nd time in

42 / 58  
 7.4 2.5  
 3.3 3.9  
 3.3 3.9

#6 Bath

Rubber Danish  
 #12

Time	g. Bul	Temp	Volts	amps	Water
11	(11) 0	8.1	9.5	19	447
12	116.5	"	"	18.5	445
13	"	"	"	18.5	464
14	"	"	"	18.5	482
15	"	"	"	18.5	501
16	"	"	"	18.5	519
17	"	"	"	18.5	538
18	"	"	"	18.5	558
19	"	"	"	18	574
20	"	"	"	18	592
21	"	"	"	18	610
22	"	"	"	18	628
23	"	"	"	18	646
24	"	"	"	18	664
25	"	"	"	19	683
26	"	"	"	19	702
27	"	83	"	19	721
28	"	83	"	19	740
29	"	81	"	18	758
30	"	"	"	"	"

July 26

2nd min

2nd time in

out

Out

# 5 Bath

Started July 24 20.

Rubber Damish

# 13

TIME	TEMP	TEMP	Voltage	Amperage	Initial	Second time
1 PM	1170	80	9.5	19		
2	"	"	"	21	21	
3	1165	84	"	21	72	
4	"	"	"	22	54	
5	"	"	"	22	86	
6	"	"	"	21.5	157	
7	"	"	"	21	158	
8	"	"	"	21.5	150	
9	"	80	"	21	171	
10	"	80	"	21.5	193	
11	"	80	"	21	214	
12	"	80	"	21	225	
1 PM	1170	80	"	21		
2	"	80	"	21		
3	"	81	"	22		
4	"	81	"	22		
5	"	82	"	22		
6	"	82	"	22		
7	"	81	"	22		
8	"	81	"	24	523	
9	"	81	"	24	547	
10	"	81	"	24		

$$\begin{array}{r} 31 \overline{) 747} \\ \underline{62} \phantom{0} \\ 127 \\ \underline{126} \\ 1 \end{array} \quad \begin{array}{l} 24 \\ 124 \end{array}$$

# #5 Bath

Rubber Dammed  
#13

TIME	Sp An	TEMP	VOLTS	Group	Total
11	1150	81	95	25	572
12	1165	"	"	25	597
1 PM	"	"	"	25	622
2	"	"	"	25	647
3	"	"	"	25	672
4	"	"	"	25	697
5	"	"	"	25	722
6	"	"	"	25	747
7	"	"	"	25	

cut time 11

# # 8 Bath. Rubber damish

TIME	TEMP	VOLts	Amps	Temp
5 PM	1160	80	9.5	15.5
6	"	"	"	15.5
7	"	"	"	15.5
8	"	"	"	15.5
9	"	"	"	16
10	"	"	"	16
11	"	"	"	16
12	"	"	"	16
1 PM	1165	"	"	16.5
2	"	"	"	16.5
3	"	83	"	17
4	"	83	"	17
5	"	81	"	16.5
6	"	81	"	16.5
7	"	82	"	17
8	"	83	"	17
9	"	"	"	17
10	"	"	"	17
11	"	80	"	17
12	1170	80	"	17
1	"	"	"	16.5
2	"	"	"	16.5

#16

Reffer  
Vernon  
#16  
2nd time  
by  
Mikel  
Shipped  
11/1  
Mikel  
by

30 hrs

$$\begin{array}{r}
 47) 744 \\
 \underline{274} \\
 470 \\
 \underline{235} \\
 235 \\
 \underline{390} \\
 390 \\
 \hline
 15.8
 \end{array}$$

# 8 Path

16 Rubber  
2 over ~~transmits~~  
tissue

	#	Volts	Temp	Temp	Total	
1	1170	9.5	80	16	354	2nd time in
5	"	"	"	16	400	
6	"	"	"	16	416	
7	"	"	"	16	432	
8	"	"	"	16.5	448	
9	"	"	"	16.5	465	
10	"	"	"	16.5	481	
11	"	"	"	16.5	498	
12	1190	"	"	16.5	514	
13	2320	"	"	16.5	531	
2	"	"	83	16	547	
3	"	"	83	16	563	
4	"	"	"	16	579	
5	"	"	"	16	595	
6	"	"	"	16	611	
7	"	"	"	16	627	
8	"	"	"	16	643	
9	"	"	"	16	659	
10	"	"	"	16	675	
11	"	"	"	16	691	
12	"	"	"	16	707	
13	"	"	"	16	713	
14	"	"	"	16	729	
15	"	"	"	16	744	

Knots to length  
before 3rd time in  
Out



# 5 Bath Rubber  
 Started July 25 - 6 PM  
 varnish #13

Time	Slip	With	Imp	Imp	Total
6 PM	1165	9-5	86	21	
7	"	"	"	21	21
8	"	"	"	21	42
9	"	"	"	21	63
10	"	"	"	21	84
11	"	"	"	21	105
12	"	"	"	21	126
July 26					
10	"	"	"	22	148
100	"	"	"	22	170
304	"	"	83	22	192
60	"	"	83	21	213
304	"	"	81	21	234
600	"	"	81	21	255
100	"	"	"	21	276
60	"	"	82	21	297
9	"	"	83	22	319
0	"	"	83	22	341
11	"	"	"	22	363
12	"	"	80	22	385
1	1170	"	"	22	407
2	"	"	"	22	429
3	"	"	"	22	451
4	"	"	"	22	473
5	"	"	"	22	495

2nd time in

$$\begin{array}{r} 38 \\ 26 \\ \hline 12 \\ 96 \\ \hline 150 \\ 152 \end{array}$$

#5 Bath Rubberdamish

#13

WES	St	Do	TEMP	Wt	Amk	Total
1	"	1170	80	9.5	22.5	577
2	"	"	"	"	25	542
3	"	"	"	"	25	567
4	"	"	"	"	25	592
5	"	"	"	"	25	617
6	"	"	"	"	23	640
7	"	"	"	"	23	663
8	"	1170	"	"	23	686
9	"	2720	"	"	22.5	719
10	"	"	83	"	22.5	741
11	"	"	83	"	22.5	764
12	"	"	"	"	21.5	786
13	"	"	"	"	21.5	808
14	"	"	"	"	21.5	829
15	"	"	"	"	21.5	851

2nd time

3rd time in  
cut

~~Cut Amk~~

#6 Bath

Rubber Varnish

#12

started July 26, 20 12 AM

TIME	SP	TEMP	VOLTS	AMPS	TOTAL
1	116.5	80	9.5	18.5	
2	"	80	"	18.5	18
3	"	"	"	18.5	36
4	"	"	"	18.5	54
5	"	"	"	18.5	73
6	"	"	"	18.5	92
7	"	"	"	18.5	110
8	"	"	"	19	129
9	"	"	"	19.5	148
10	"	"	"	19.5	168
11	"	"	"	19	187
12	117.0	"	"	18.5	
1	"	"	"	18.5	183
2	"	83	"	18	202
3	"	83	"	18	220
4	"	"	"	18	239
5	"	"	"	18	258
6	"	"	"	18	277
7	"	"	"	18	296
8	"	"	"	18	315
9	"	"	"	19	334

32 time in  
was recoated  
before part in  
bath.

$$\begin{array}{r}
 44 \overline{) 845.2} \\
 \underline{44} \phantom{0} \\
 405 \phantom{0} \\
 \underline{33} \phantom{0} \\
 720 \\
 \underline{720} \\
 0
 \end{array}
 \quad 18.5$$

# #6 Bath

July 20  
 ME Sp. Pas. Temp. Volts Amps

12	1170	80	95	19
13	"	"	"	18
2	"	"	"	19
3	"	"	"	19
4	1165	82	"	19
5	"	"	"	19
6	"	"	"	19
7	"	"	"	19
8	"	"	"	19
9	"	"	"	19
10	"	83	"	18.5
11	"	"	"	18.5
12	1170	"	"	19

July 28, 20.

1	"	"	"	17
2	"	"	"	17
3	"	"	"	17
4	"	"	"	17
5	"	"	"	17.5
6	"	80	"	17.5
7	"	"	"	17
8	"	"	"	17

# Rubberdarnish

## #12

Total 3rd time in  
 93.3" was recorded  
 before put in  
 bath!

815

Out

#4 Batts					Rubber Tarnish	
at 12 AM					#10	
TIME	Temp	Vib	Amper	Feet	4 <sup>th</sup> time in	
12 AM	170	80	9.5	16.5	knew better than	
1 PM	"	"	"	16.5	off and retested	
2	"	"	"	16.5	16	
3	"	"	"	16.5	31	
4	"	"	"	17	47	
5	"	"	"	17	64	
6	"	"	"	17	81	
7	"	"	"	16.5	98	
8	"	"	"	16.5	114	
9	"	"	"	16	130	
10	"	"	"	16	146	
11	"	"	"	16	162	
12	170	"	"	17	179	
1 PM	27.20	"	"	17	196	
2	"	83	"	17	216	
3	"	83	"	17	233	
4	"	"	"	17	250	
5	"	"	"	17	267	
6	"	"	"	16	284	
7	"	"	"	16	300	
8	"	"	"	16	316	
9	"	"	"	16	332	
10	"	"	"	16.5	348	
11	"	"	"	16.5	365	
12	"	"	"	17	382	

$$\begin{array}{r}
 46 / 753 \div 16.3 \\
 \underline{45} \phantom{00} \\
 103 \\
 \underline{98} \phantom{00} \\
 53 \\
 \underline{48} \phantom{00} \\
 5 \\
 \hline
 170 \\
 \hline
 13.8
 \end{array}$$

# 4 Bath

Time	Sp. In	Temp	Vtcs	Amp	Scale
12	1170	80	9.5	17	499
1	"	"	"	16.5	405
2	"	"	"	17	422
3	"	"	"	17.5	440
4	1165	80	"	17	457
5	"	"	"	17	476
6	"	"	"	17	491
7	"	"	"	17	508
8	"	"	"	17	525
9	"	"	"	17	542
10	"	80	"	16	559
11	"	"	"	16	574
12	1170	"	"	16	590
1	1170	"	"	16	606
2	"	"	"	16	622
3	"	"	"	16	638
4	"	"	"	16	654
5	"	"	"	16	670
6	"	80	"	17.5	687
7	"	"	"	17.5	705
8	"	"	"	17.5	722
9	"	78	"	15.5	738
10	"	"	"	15.5	753

Rubber Varnish

# 10

with time in  
Rubs taken  
off and recast

Out

#3 Bath

Rubberdomish

#18

Started July 26 20 at 4 PM.

TIME	Sp	Alt	Temp	Volts	Amps	Total
4 PM	1170	80	95	22		
5	"	"	"	22	22	
6	"	"	"	22	44	
7	"	"	"	22	66	
8	"	"	"	23	89	
9	"	"	"	23	112	
10	"	"	"	23	135	
11	"	"	"	23	158	
12	"	"	"	23	181	
July 27 20						
1	"	83	"	23	204	
2	"	83	"	23	227	
3	"	"	"	23	250	
4	"	"	"	23	273	
5	"	"	"	23	296	
6	"	"	"	23	319	
7	"	"	"	23	342	
8	"	"	"	23	365	
9	"	"	"	23	388	
10	"	"	"	23	411	
11	"	"	"	23.5	434	
12	"	"	"	23.5	458	
1 PM	"	"	"	23	481	
2	"	"	"	23	504	
3	"	"	"	23	527	

1st time in  
Start of mouse and leafy





## #7 Bath

Sent July 26<sup>20</sup>.

Time Spent

5 PM 1170 80

6 " " 95

7 " " 175

8 " " 175

9 " " 185

10 " " 175

11 " " 175

12 " " 175

July 27<sup>20</sup>.

1 PM 80

2 " " 83

3 " " 83

4 " " 175

5 " " 175

6 " " 175

7 " " 175

8 " " 175

9 " " 18

10 " " 18

11 " " 18

12 " " 18

1 PM 175

2 " " 175

3 " " 18

4 1165 " 18

5 PM

Amp

17.5

17.5

17.5

18.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

17.5

## Rubber Tarnish

#17

2nd time in

bug broke off

and resoldered

and resoldered

the soldered bug.

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

$$\begin{array}{r}
 43 \overline{) 7610} \quad 17.7 \\
 \underline{434} \phantom{0} \\
 326 \phantom{0} \\
 \underline{301} \phantom{0} \\
 250
 \end{array}$$

#7 Bath.

Rubber bands

#17

July 27, 20	Sp. Res.	Temp.	Voltage	Amperes	Temp.
5 min.	1165	82	9.5	16	432
6	"	"	"	16	457
7	"	"	"	19	470
8	"	"	"	19	487
9	"	"	"	19	478
10	"	83	"	18	516
11	"	83	"	18	534
12	1170	"	"	17.5	551
July 27, 20					
1 min.	"	"	"	17.5	567
2	"	"	"	17.5	586
3	"	"	"	17.5	604
4	"	"	"	17.5	621
5	"	"	"	17.5	637
6	"	80	"	18	654
7	"	"	"	18	675
8	"	"	"	18	693
9	"	78	"	17	710
10	"	"	"	17	727
11	"	"	"	17	744
12	"	"	"	17	761

2nd time in

Cont

#2 Bath  
Started July 26, 1910 at 6 PM.

Rubber Varnish

#19

TIME	Sp. 89	July	Volts	Temp	Total
6 PM	1170	80	9.5	16.5	
7	"	"	"	17	33
8	"	"	"	18	51
9	"	"	"	18	69
10	"	"	"	18	87
11	"	"	"	18	105
12	"	"	"	18	123
July 27, 1910					
1 PM	"	"	"	19	141
2	"	83	"	17.5	158
3	"	83	"	17.5	176
4	"	"	"	17.5	193
5	"	"	"	17.5	211
6	"	"	"	17	228
7	"	"	"	17	246
8	"	"	"	17	263
9	"	"	"	17.5	279
10	"	"	"	17.5	297
11	"	"	"	17	314
12	"	"	"	17	331
1 PM	"	"	"	17	348
2	"	"	"	17	365
3	"	"	"	17	382
4	1165	82	"	17.5	399
5	"	"	"	17.5	417

1st time in  
Edge of disc  
wiped with  
rubber

$$43 \overline{) 173} \quad 17.3$$

$$\underline{43} \phantom{00}$$

$$317$$

$$\underline{317}$$

$$169$$

$$\underline{169}$$

$$31$$

# # 2 Bath

Rubber damish

#19

July 27	Sp. No.	Temp	Volt	Amps	Total	1st time in
6 PM	1165	82	9.5	18	435	Edge of disc
7	"	"	"	18	453	Washed with
8	"	"	9	17	471	rubber
9	"	"	"	17	539	
10	"	"	"	17	535	
11	"	83	"	18	524	
12	1170	"	"	16	540	
1 PM	2120	"	"	16	576	
2	"	"	"	16	572	
3	"	"	"	16	583	
4	"	"	"	16	581	
5	"	"	"	16	577	
6	"	80	"	15.5	535	
7	"	"	"	15.5	527	
8	"	"	"	15.5	667	
9	"	"	"	15	682	
10	"	"	"	16	698	
11	"	"	"	16	714	
12	"	"	"	16.5	730	
1 PM	"	"	"	16.5	747	

Out

#8 Bath

July 28, 20 at 1:44 AM

TIME Sp. Volts Amps Total

10 AM 1170 98 95 16

11 " " " 17 17

12 " " " 16 33

1 PM " " " 16 49

2 " " " 16 65

3 " " " 15.5 80

4 " " 82 96

5 " " " 15.5 111

6 " " " 16 127

7 " " " 16 143

8 " " " 16 159

9 " " " 16 175

10 " " 83 191

11 " " " 16 207

12 " " " 16 223

July 29, 20. 16 239

1 " " " 16 255

2 " " " 16 271

3 " " " 16 287

4 " " " 15 302

5 " " " 15 317

6 " " " 14.5 331

7 " " " 14.5 346

8 " " " 14.5 360

#16

Rubber

Tarnish.

3rd time  
in. Lumber used  
taken off and  
recoated.Added one  
million of dist.  
water

~~Added one gallon~~

July 30. 20

Added one gallon of dist. W.  
at 2 school.

44) 713/151  
147x  
263  
265/80

# 8 Bath

Rubber varnish

#16

429	TIME	Sp	in	Temp	V	Atb	Ampl	Total
10 AM	1170	80	95	14.5	374			
11	"	"	"	15	389			
12	"	"	"	14.5	404			
1 PM	"	"	"	14.5	418			
2	"	"	"	14.5	433			
3	"	"	"	14.5	447			
4	"	82	95	14	461			
5	"	82	95	14	475			
6	"	"	"	14.5	489			
7	"	"	"	14.5	504			
8	"	"	95	14.5	518			
9	"	"	"	14.5	533			
10	"	"	"	14.0	547			
11	"	"	"	14.5	562			
12	"	"	"	14.5	576			
July 30, 20								
10 AM	1170	80	"	14.5	591			
11	"	"	"	14.5	605			
12	"	40	"	15	620			
1	"	"	"	15	635			
2	"	"	"	15	650			
3	"	"	9	15	665			
4	"	"	"	16	681			
5	"	"	"	16	697			
6	"	"	"	16	713			

Out

## #6 Bath

Rubber Damnick

start July 28, 20

2 PM

#12

TIME	Sp. gr.	TEMP	Volts	Amps	total
2 PM	1176	80	9.5	17	17
3	"	"	"	17	34
4	"	82	"	17	51
5	"	"	"	17	68
6	"	"	"	17	85
7	"	"	"	17	102
8	"	"	"	17	119
9	"	"	"	17	136
10	"	83	"	17	153
11	"	"	"	17	170
12	"	"	"	17	187
July 29, 20					
1 PM	"	80	"	16	166
2	"	80	"	16	202
3	"	"	"	16	218
4	"	"	"	16	234
5	"	"	"	16	250
6	"	"	"	16	266
7	"	"	"	16.5	282
8	"	"	"	16.5	299
9	1170	80	9.5	16	315
10	"	"	"	16	331
11	"	"	"	15.5	348
12	"	"	"	15.5	362
1 PM	"	"	"	15.5	377

Recorded and  
time for with  
time in bath  
except left  
few hrs on  
when recorded

47/168 / 16.3  
 15.1  
 28.8  
 15.9

# #6 Bath

Rubber Jarwick  
 #12

TIME	SP. GR.	TEMP	VOLTS	AMPS	TOTAL
1	1170	FO	9.5	N.T.	393
2	"	"	"	15.5	408
3	"	"	"	15.5	424
4	"	82	9.5	15.5	439
5	"	"	"	15.5	454
6	"	83	"	15.5	470
7	"	"	"	16	486
8	"	"	"	16	502
9	"	"	"	17.5	517
10	"	"	"	16	533
11	"	"	"	16	549
12	"	"	"	16	565
13	July	30	"	16	581
14	"	"	"	16	597
15	"	80	"	16	613
16	"	"	"	16	629
17	"	"	9	17	645
18	"	"	"	17	663
19	"	"	"	17	680
20	"	"	"	17	697
21	"	"	"	17.5	714
22	1170	"	9.5	17.5	732
23	"	"	"	18	750
24	"	"	"	18.5	768

Remains 2nd time  
 + sends small set  
 4th time inc.

Cont



#5 Butts

Rubber Danish

#20

started July 28 20 out 3 P.M.

TIME	Spd	Temp	Wt	Wt	Wt
1 AM	1170	80	9.5	20.5	20.5
2	"	82	"	20.5	20
3	"	"	"	20.5	41
4	"	"	"	20.5	61
5	"	"	"	21	82
6	"	"	"	21	103
7	"	"	"	21	124
8	"	"	"	21	145
9	"	83	"	21	166
10	"	"	"	21	187
11	"	"	"	21	187
12	"	"	"	21	187
1 AM	1170	80	9.5	20.5	20.5
2	"	"	"	20.5	20.5
3	"	"	"	20.5	20.5
4	"	"	"	20.5	20.5
5	"	"	"	20.5	20.5
6	"	"	"	20.5	20.5
7	"	"	"	20.5	20.5
8	"	"	"	20.5	20.5
9	1170	80	9.5	20.5	20.5
10	"	"	"	20.5	20.5
11	"	"	"	20.5	20.5
12	"	"	"	20.5	20.5
1 AM	"	"	"	20.5	20.5
2	"	"	"	20.5	20.5

1st time in

Anders appeared  
2-30 AM,

41) 817 (19.9  
 $\frac{407}{360}$

# 5 Bath

Rubberthornish  
 #20.

Time	Sp	Temp	Valve	Comp	Total
11:20	80	9.5	19.5	461	
"	82	9.	19.	480	
"	"	9.5	19.	499	
"	83	"	19.5	518	
"	"	"	19.5	538	
"	"	"	19.5	557	
"	"	"	19.5	576	
"	"	"	19.5	596	
"	"	"	19.5	615	
"	"	"	19.5	635	
July 30	80	"	19.5	655	
"	"	"	19.5	675	
"	80	"	19.5	695	
"	"	"	19.5	715	
"	"	"	19.5	735	
"	"	9	20	755	
"	"	"	22	775	
"	"	"	22	795	
"	"	9	21	817	
"	"	9.5	"		
"	"	"	"		
"	"	"	"		
"	"	"	"		

Cont

#4 Bath  
Started July 29. 20.

Rubber Narinshi  
#10

TIME	Sp	Sw	Temp	Volts	Amp	Total
5:00	110	80	95	15.5	15	15
6	"	82	"	15.5	31	31
7	"	"	"	15.5	46	46
8	"	"	"	15.5	62	62
9	"	"	"	15.5	77	77
10	"	"	"	15.5	93	93
11	"	83	"	15.5	108	108
12	1140	"	"	15.5	124	124
July 29	"	"	"	15.5	139	139
1	"	80	"	15	154	154
2	"	"	"	15	169	169
3	"	"	"	15	184	184
4	"	"	"	15	199	199
5	"	"	"	15	214	214
6	"	"	"	15	229	229
7	"	"	"	15	244	244
8	"	"	"	15	259	259
9	1170	80	95	15.5	274	274
10	"	"	"	15.5	290	290
11	"	"	"	15	305	305
12	"	"	"	15	320	320
1:00	"	"	"	15	335	335
2	"	"	"	15	350	350

5th time  
in knofe  
was peccated  
with rubber.

52)  $\frac{824}{15.8}$   
 $\frac{520}{304}$   
 $\frac{476}{416}$

#4 Bath

Rubber Damish  
 #10

TIME	Sp. No.	Temp	Volts	Amp	Total
4 PM.	1170	80	9.5	15	365
5	"	82	9.5	15	380
6	"	83	9.5	15.5	395
7	"	"	"	15.5	410
8	"	"	"	15.5	425
9	"	"	"	15.5	440
10	"	"	"	15.5	456
11	"	"	"	15.5	471
12	"	"	"	15.5	487
1	"	"	"	15.5	502
2	"	"	"	15.5	518
3	"	"	"	15.5	533
4	"	80	"	16	549
5	"	"	"	16	565
6	"	"	"	16	581
7	"	"	9	15	596
8	"	"	"	15	611
9	"	"	"	15	626
10	1170	80	9.5	15.5	641
11	"	"	"	15.5	656
12	"	"	"	15.5	671
1	"	"	"	15.5	686
2	"	"	"	15.5	701
3	"	"	"	15.5	716
4	"	"	"	15.5	732
5	"	"	"	15.5	747
6	"	"	"	15.5	762
7	"	"	"	15.5	777
8	"	"	"	15.5	792
9	"	"	"	15.5	807
10	"	"	"	15.5	822

5th time wire  
 was reconnected  
 with handle  
 on.

out

# 7 Bath

Rubberdamish

July 29 20. at 12-AM.

# 17

Time	Sp. In	Inj	Vital	Angle	Total
12 AM	1170	80	9.5	15.5	
1 PM	"	"	"	16	16
2	"	"	"	15.5	32
3	"	"	"	15.5	47
4	"	82	9.5	15.5	63
5	"	"	"	15.5	78
6	"	83	"	15.5	94
7	"	"	"	15.5	109
8	"	"	"	16.0	125
9	"	"	"	16.0	141
10	"	"	"	15.5	156
11	"	"	"	16	172
12	"	"	"	16	188
July 30 20.					
1 AM	"	"	"	16	204
2	"	"	"	16	220
3	"	86	"	16	236
4	"	"	"	16	252
5	"	"	"	16	269
6	"	"	9	17	285
7	"	"	"	17	302
8	"	"	"	18	320
9	"	"	"	18	338
10	"	"	9.5	18	356
11	"	"	"	18	374

Kinder taken off  
and presented  
3rd time in

46 / 746

#7 Bath

Rubber Transistor

#17

TIME	Sp	Dev	Temp	Volta	Amps	Total
12	1170	80	95	185	392	
1 PM	"	"	"	185	411	
2	"	"	"	16.0	437	
3	"	"	"	16	433	
4	"	"	"	16.6	459	
5	"	"	"	16	475	
6	"	"	"	16.5	492	
7	"	"	"	16	508	
8	"	"	"	16	524	
9	"	"	"	16	540	
10	"	"	"	16	556	
11	"	"	"	16	572	
12	"	"	"	16	588	
1 PM	"	"	"	16	604	
2	"	"	"	16	620	
3	"	"	"	16	636	
4	"	"	"	16	652	
5	"	"	"	16	668	
6	"	"	"	16	684	
7	"	"	"	16	700	
8	"	"	"	16	716	
9	"	"	"	16	732	
10	"	"	"	16	748	

Before putting in  
leaves was taken  
off and rechecked  
rubber transistor  
3rd time in

Be careful  
when taking  
this measurement  
key is read to  
breakup.

cont

#3 Bath

Rubber damish

Started July 29, 20. at 4 PM. #18

ME Sp. Temp. Delta Amp. Jitter 2nd time

4 PM 1170 82 9.5 18.5 18 in after

5 " " 9.5 18.5 37 stopping

6 " " 83 " 18.5 55 Edge inf. by

7 " " " 18.5 74 finger

8 " " " 19.5 94

9 " " " 19.5 113

10 " " " 19.5 113

11 " " " 19.5 113

12 " " " 19.5 113

July 30, 20.

4 PM 1170 80 9.5 19.5 113

2 " " " 19.5 113

3 " " 86 " 20 113

4 " " " 20 113

5 " " " 20 113

6 " " 9 " 21 113

7 " " " 21 113

8 " " " 21 113

9 " " 9.5 21 356

10 " " " 21 377

11 " " " 21 398

12 " " " 22 420

1 PM 19.5 439

2 " " " 19.5 459

40/8/15/20.3

# #3 Bath Rubberdarnish #18

TIME	SP. AN	TEMP	Volts	Amper	Feet
4	1.70	80	9.8	19	478
5	"	"	"	19.5	497
6	"	"	"	20	517
7	"	"	"	19.5	537
8	"	"	"	19	556
9	"	"	"	21	577
10	"	"	"	21	588
11	"	"	"	21	597
12	"	"	"	21	608
AM July 31					
10.0	11.90	80	"	20.5	6
20.0	"	"	"	21.5	6
30.0	"	"	"	21	7
40.0	"	"	"	21	7
50.0	"	"	"	22	14
60.0	"	"	"	22	76
70.0	"	"	"	22	7
80.0	"	"	"	22	815 Cont.

and time in  
after stripping  
Edges wiped by  
finger



## #2-Both

Started July 29<sup>th</sup> 20.

TIME	Sp. H.	TEMP	Volts	Amperes	Total
4 PM	1170	82	9	14.5	
5	"	"	9.5	14.5	14
6	"	83	"	14.5	29
7	"	"	"	14.5	43
8	"	"	"	17	60
9	"	"	"	17	77
10	"	"	"	17	94
11	"	"	"	17	111
12	"	"	"	17	128
July 30 <sup>th</sup> 20.					
4 PM	1170	80	9.5	17	145
5	"	"	"	17	162
6	"	80	"	17.5	180
7	"	"	"	17.5	197
8	"	"	"	17.5	215
9	"	"	9	17	232
10	"	"	"	17	249
11	"	"	"	17	266
12	"	"	"	17	283
1	"	"	9.5	17.5	300
2	"	"	"	17.5	318
3	"	"	"	17.5	335
4	"	"	"	17.5	353
5	"	"	"	15.5	368
6	"	"	"	15.5	384

Rubber Varnish

#19

2nd time in  
after stripping  
Edge wiped  
by mach.

# #2 Bath

Rubber removed  
#19

Time	Sp. Gr.	Temp	Voltage	Amperes	Total
4	1170	80	9.5	15.5	399
5	"	"	"	15.5	415
6	"	"	"	15	430
7	"	"	"	15	445
8	"	"	"	15.5	460
9	"	"	"	15	475
10	"	"	"	15	490
11	"	"	"	15	505
12	"	"	"	15	520
13	1170	"	"	14.5	535
14	"	"	"	14.5	549
15	"	"	"	15	564
16	"	"	"	15	579
17	"	"	"	15	594
18	"	"	"	15	609
19	"	"	"	15	624
20	"	"	"	15	639
21	"	"	"	15.5	654
22	"	"	"	15.5	669
23	"	"	"	15	684
24	"	"	"	15	699
25	"	"	"	15.5	714
26	"	"	"	15.5	730
27	"	"	"	15.5	746

2nd time in  
after stripping  
Edge wiped off  
machine.

Out

47 / 746 / 1  
290

Aug 1 - 20

Had trouble during the  
hours of 4 AM and 7 AM.  
was stopping about in  
20 min during last few  
hours. Squies on shaft  
continue to come later. Had  
same trouble before.

Stopped 3-40 same  
trouble as before

# 8 Bath  
Started July 30, 20. at 3 P.M. #16

TIME	Sp	TEMP	Notes	Amper	Intell
3PM	1170	80	9.5	15	
4	"	"	"	15	32
5	"	"	"	15.5	31
6	"	"	"	16	32
7	"	"	"	15.5	78
8	"	"	"	15	93
9	"	"	"	17	110
10	"	"	"	17	127
11	"	"	"	14	44
12	"	"	"	17	
July 31, 20					
1	1170	80	9.5	17	143
2	"	"	"	17	30
300	"	"	"	17	
400	"	"	"	17	
500	"	80	"	16.5	22.5
600	"	"	"	16.5	20.5
700	"	"	"	15	24.7
800	"	"	"	15	27.3
9	"	"	"	15	30.7
10	"	"	"	15	32.2
11	"	"	"	15	33.7
12	"	"	"	15	35.2
1	"	"	"	15	36.7
2	"	"	"	15	38.2

Probably 4.500 min

4<sup>th</sup> time ...  
note at ...  
not recorded

# 8 Bath

Raukharovich  
#16.

Time	Sp. Pw	TEMP	Volta	Amp	Total
3	1170	80	9.5	15	309.2
4	"	"	"	15	412 <sup>45</sup> time in
5	"	"	"	15	729 <sup>45</sup> time in
6	"	"	"	15	442 <sup>45</sup> time in
7	"	"	"	15	442 <sup>45</sup> time in
8	Shut down				
9	1170	"	"	15	
10	"	"	"	15	
11	1170	"	"	15	
12	ang	"	"	15	
13	"	"	"	15	
14	"	"	"	15	
15	"	"	"	15	
16	"	"	"	15	
17	"	"	"	15	
18	"	"	"	15	
19	"	"	"	15	
20	"	"	"	15	
21	"	"	"	15	
22	"	"	"	15	
23	"	"	"	15	
24	"	"	"	15	
25	"	"	"	15	
26	"	"	"	15	
27	"	"	"	15	
28	"	"	"	15	
29	"	"	"	15	
30	"	"	"	15	
31	"	"	"	15	
32	"	"	"	15	
33	"	"	"	15	
34	"	"	"	15	
35	"	"	"	15	
36	"	"	"	15	
37	"	"	"	15	
38	"	"	"	15	
39	"	"	"	15	
40	"	"	"	15	
41	"	"	"	15	
42	"	"	"	15	
43	"	"	"	15	
44	"	"	"	15	
45	"	"	"	15	
46	"	"	"	15	
47	"	"	"	15	
48	"	"	"	15	
49	"	"	"	15	
50	"	"	"	15	
51	"	"	"	15	
52	"	"	"	15	
53	"	"	"	15	
54	"	"	"	15	
55	"	"	"	15	
56	"	"	"	15	
57	"	"	"	15	
58	"	"	"	15	
59	"	"	"	15	
60	"	"	"	15	
61	"	"	"	15	
62	"	"	"	15	
63	"	"	"	15	
64	"	"	"	15	
65	"	"	"	15	
66	"	"	"	15	
67	"	"	"	15	
68	"	"	"	15	
69	"	"	"	15	
70	"	"	"	15	
71	"	"	"	15	
72	"	"	"	15	
73	"	"	"	15	
74	"	"	"	15	
75	"	"	"	15	
76	"	"	"	15	
77	"	"	"	15	
78	"	"	"	15	
79	"	"	"	15	
80	"	"	"	15	
81	"	"	"	15	
82	"	"	"	15	
83	"	"	"	15	
84	"	"	"	15	
85	"	"	"	15	
86	"	"	"	15	
87	"	"	"	15	
88	"	"	"	15	
89	"	"	"	15	
90	"	"	"	15	
91	"	"	"	15	
92	"	"	"	15	
93	"	"	"	15	
94	"	"	"	15	
95	"	"	"	15	
96	"	"	"	15	
97	"	"	"	15	
98	"	"	"	15	
99	"	"	"	15	
100	"	"	"	15	

over next page.

No 8 Bath  
Rubber Voring  
# 16

Time	SPG	Temp	Volts	Amps	Notes
5:00	1170	80	9.5	15.678	
6	"	"	"	15.693	
7	"	"	"	15.908	
8	"	"	"	15.423	
9	"	"	"	15.438	
10	"	"	"	15.453	Out

48/253  
48/253  
275  
275  
336  
15.7

# 5 Bath  
Rubber Voring  
# 20

Started July 30 20 at 4 P.M.

TIME SPG TEMP Volts Amps Feet.

4 P.M.	1170	80	9.5		
5	"	"	"	20.5	20
6	"	"	"	20	40
7	"	"	"	20	60
8	"	"	"	21	81
9	"	"	"	22.5	103
10	"	"	"	22.5	126
11	"	"	"	22.5	148
12	"	"	"	22.5	171

July 30 20					
1 P.M.	1170	80	9.5	22	173
2	"	"	"	22	215
3	"	"	"	23	238
4	"	"	"	23	261
5	"	80	"	16	274
6	"	"	"	16	273
7	"	"	"	16	273
8	"	"	"	16	273
9	"	"	"	23.5	348
10	"	"	"	23	371
11	"	"	"	23	394
12	"	"	"	23.5	418
1 P.M.	"	"	"	23	441
2	"	"	"	22	463
3	"	"	"	22	485

2nd time in  
no knots.

38) 796 / 21  
 164  
 26

# 5 Butte

Rubberdamick  
 #20

NE	Sp	on	Imp	alt	amp	Int
4	170	80	9.5	23	58	
5	"	"	"	23	58	
6	"	"	"	23	55	
7	"	"	"	23	57	
8						
9						
10						
11	1170	"	"	21	598	
12	"	"	"	21	619	
AM	ang 1					
100	"	"	"	21	640	
200	"	"	"	21	661	
300	"	"	"	21	682	
400	"	"	"	21	703	
500	"	9	"	20	723	
600	"	"	"	18	741	
700	"	"	"	18	757	
800	"	9.5	"	18	777	
900	"	"	"	17	796	
1100	11	9-5	"			

Shut Down

6ut

Exp 24 A-B  
 Removed from Nickel  
 after 100 amp hrs & put  
 in Cu wet full current.

metal 9/16/53  
 B. B. B. B.

#6 Cu Bath					Exp 24-A-B	
TIME	Spn	Temp	Rate	amp	9 AM	total
10	1170	80	9.5	15.5	15	
11	"	"	"	15.5	30	
12	"	"	"	15.5	46	
1 PM	"	"	"	15.5	61	
2	"	"	"	16	77	
3	"	"	"	16	93	
4	"	"	"	16	109	
5	"	"	"	16	125	
6	"	"	"	16	141	
7	"	"	"	16	157	
8	"	"	"	"		
Shut Down						
1100	1190	"	"	15.5	153	
1200	"	"	"	15.5	168	
1 PM	any	"	"	"		
100	"	"	"	15.5	204	
200	"	"	"	15	219	
300	"	"	"	15	234	
400	"	"	"	15	249	
500	9	"	"	14.5	263	
600	"	"	"	14.5	278	
700	"	"	"	14.5	292	
800	"	9.5	"	14.5	307	

# no 6 Both Exp 24 A-B

Time	Sp	Temp	U/E	Temp	Total
9:00	117	85	7.5	15	322
10:	"	"	"	15	337
Shut Down					
3:00	"	"	"	15	352
4:00	"	"	"	15	367
5:	"	"	"	15	382
6:	"	"	"	15	397
7:	"	"	"	15	412
8:	"	"	"	15	427
9:	"	"	"	15	442
10:	"	"	"	15	457
11:	"	"	"	16	473
12:	"	"	"	16	479
AM Aug 2	"	"	"	"	"
1:00	117	"	"	16	515
2:	"	"	"	16	531
3:	"	"	"	16	547
4:	"	"	"	16	563
5:	"	"	"	16	579
6:	"	"	"	16	595
7:	"	"	"	16	611
8:	"	"	"	16	627
9:	"	"	"	16	643
10:	"	"	"	16	659

# #6 Cw Bath Aug 2 30 Exp 24 A-B

Time	Sp	Temp	U/E	Temp	Total
11 AM	117	80	9.5	16.5	685
12:	"	"	"	16.5	702
1 PM	"	"	"	16.5	718
2	"	"	"	16	734
3	"	"	"	16.5	750
4	"	"	"	16.5	767
5	"	"	"	16.5	783
6	"	"	"	16.5	800
7	"	"	"	16.5	816
Cant					
5/ 845					
5/ 517					
3/ 376					



Exp 25 AB.  
 Removed from CW after  
 100 amp hrs & dust  
 in CW wet full  
 current on.  
noted 1/15/63 Kasal Cor

July		#	4:30 AM	Bath	Exp
Time	Sp. g.	Temp	Rate	Amp	Total
9 AM	1170	8.5	9.5	15	15
10	"	"	"	15	30
11	"	"	"	15.5	46
12	"	"	"	15.5	61
1 PM	"	"	"	15.5	77
2	"	"	"	15	92
3	"	"	"	15	107
4	"	"	"	15	122
5	"	"	"	15	137
6	"	"	"	15	152
7	"	"	"		
8	"	"	"		
Shut Down					
1100	1170	8.0	9.5	15.5	167
1200	"	"	"	15.5	183
AM	avg 1		"	15.5	198
1000	"	"	"	15	213
2000	"	"	"	15	228
3000	"	"	"	15	243
4000	"	"	"	15	258
5000	"	9	"	15	273
6000	"	"	"	15	288
7000	"	"	"	15	303
8000	"	9.5	"	15	318
9000	"	9.5	"	16	334

No. 4 Bath A-B

1/25 8:30 Temp. Vol. Amp Total  
1/25 1170 80 9.5 15 334

3:00	1170	80	9.5	15	349
4:00	"	"	"	15	364
5:00	"	"	"	15	379
6:00	"	"	"	15	394
7:00	"	"	"	15	409
8:00	"	"	"	15	424
9:00	"	"	"	15	439
10:00	"	"	"	15	454
11:00	"	"	"	15	469
12:00	"	"	"	15	484
AM Aug 2					
1:00	"	"	"	15	499
2:00	"	"	"	15	514
3:00	"	"	"	16	530
4:00	"	"	"	16	546
5:00	"	"	"	16	562
6:00	"	"	"	16	578
7:00	"	"	"	16	594
8:00	"	"	"	16	610
9:00	"	"	"	16	626
10:00	"	"	"	16	642
11:00	"	"	"	16	658
12:00	"	"	"	16	674
1:00	"	"	"	16	690
2:00	"	"	"	16	706
3:00	"	"	"	16	722

25 A-B  
1170 80 9.5 15 334  
1170 80 9.5 15 349  
1170 80 9.5 15 364  
1170 80 9.5 15 379  
1170 80 9.5 15 394  
1170 80 9.5 15 409  
1170 80 9.5 15 424  
1170 80 9.5 15 439  
1170 80 9.5 15 454  
1170 80 9.5 15 469  
1170 80 9.5 15 484  
1170 80 9.5 15 499  
1170 80 9.5 15 514  
1170 80 9.5 15 530  
1170 80 9.5 15 546  
1170 80 9.5 15 562  
1170 80 9.5 15 578  
1170 80 9.5 15 594  
1170 80 9.5 15 610  
1170 80 9.5 15 626  
1170 80 9.5 15 642  
1170 80 9.5 15 658  
1170 80 9.5 15 674  
1170 80 9.5 15 690  
1170 80 9.5 15 706  
1170 80 9.5 15 722

# 2 Bath

Start July 31 20 at 7 PM  
TIME Spent Temp. Vol. Amp Total  
7 PM 1170 80 9.5 15 158

E4# 26 A-B

Shut Down

1:00	1170	80	9.5	14.5	14
2:00	"	"	"	14.5	29
3:00	"	"	"	14.5	44
4:00	"	"	"	15	59
5:00	"	"	"	15	74
6:00	"	"	"	15	89
7:00	"	"	"	15	104
8:00	"	"	"	14	118
9:00	"	"	"	14	132
10:00	"	"	"	15	146
11:00	"	"	"	15	161
12:00	"	"	"	15	176

Shut down

3:00	1170				
4:00	"	"	"	15	191
5:00	"	"	"	15	206
6:00	"	"	"	15	221
7:00	"	"	"	15	236
8:00	"	"	"	15	251
9:00	"	"	"	15	266
10:00	"	"	"	15	281

# 2 Bath

Exp # 26 AB

	87 gr Temp	Volts	amp	Total
100	170 80	9.5	16	299
120	" "	"	16	313
AM	avg 2			
110	" "	"	16	329
20	" "	"	16	345
30	" "	"	16	361
40	" "	"	16	374
50	" "	"	16	393
60	" "	"	16	409
70	" "	"	16	428
80	" "	"	16	441
90	1170 80	9.5	16	457
100	" "	"	16	473
110	" "	"	14	487
120	" "	"	14	501
130	" "	"	14	515
140	" "	"	14	529
150	" "	"	18	544
160	" "	"	15	559
170	" "	"	15	574
180	" "	"	15	589
190	" "	"	15	594
200	" "	"	15	619



Out

#2 Bath Exp 26 HB

#3 Bath  
Started July 31, 20 at 7 AM  
TIME Exp Wt Temp Wt Exp Temp  
7 AM 1170 80 9.5 18

Exp #27 HB

Bund enter

~~18~~ ~~18~~

Shut Down  
1100 1170 80 9.5 18 18  
1200 " " " 18 36  
1 AM Aug 1  
100 " " " 18 54  
200 " " " 19 73  
300 " " " 19 72  
400 " " " 19 111  
500 " " 9 18 136  
600 " " " 18 148  
700 " " " 18 166  
800 " " 9.5 18 184  
900 " " " 19 203  
1000 " " " 19 222

Shut Down  
300 1170 80 9.5 19 241  
400 " " " 19 260  
500 " " " 19 279  
600 " " " 19 298  
700 " " " 19 317  
800 " " " 19 336  
900 " " " 19 355

✓

# # 3 Bath

Eys # 27AB

16.00	819	Temp.	Wells	Amph	Total
11.00	1170	80	7.5	19	374
12.00	"	"	"	19	393
13.00	"	"	"	19	412
14.00	Aug	2	20		
15.00	1170	80	9.5	20	432
16.00	"	"	"	20	452
17.00	"	"	"	21	473
18.00	"	"	"	21	494
19.00	"	"	"	21	515
20.00	"	"	"	21	536
21.00	"	"	"	21	557
22.00	"	"	"	21	578
23.00	1170	80	9.5	21	599
24.00	"	"	"	21	620
25.00	"	"	"	20	640
26.00	"	"	"	20	660
27.00	"	"	"	20	680
28.00	"	"	"	20	700
29.00	"	"	"	20	720
30.00	"	"	"	20	740
31.00	"	"	"	20	760
32.00	1175	"	"	21	781
33.00	"	"	"	21	802

41) 802 / 19  
 41 20  
 392  
 360  
 32

Out

Ms. 4 Rath

Time		Temp	Volts	Amps	Notes	#
1	01	80	9.5	1/4		
1	02	"	"	1		
1	03	"	"	1		
1	04	"	"	1		
1	05	"	"	1		
1	06	"	"	1		
1	07	"	"	1		
1	08	"	"	1		
1	09	"	"	1		
1	10	"	"	1		
1	11	"	"	1		
1	12	"	"	1		
1	13	"	"	1		
1	14	"	"	1		
1	15	"	"	1		
1	16	"	"	1		
1	17	"	"	1		
1	18	"	"	1		
1	19	"	"	1		
1	20	"	"	1		
1	21	"	"	1		
1	22	"	"	1		
1	23	"	"	1		
1	24	"	"	1		
1	25	"	"	1		
1	26	"	"	1		
1	27	"	"	1		
1	28	"	"	1		
1	29	"	"	1		
1	30	"	"	1		

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**235**

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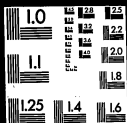
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